



**OPGC**  
*Power for Progress*

GRI-G4  
Aligned

# Towards.... A Resilient Future



**Sustainability Report: 2014-15 & 2015-16**

# Towards.... A Resilient Future

***Resilience is the skill, perseverance and capacity to be robust under conditions of enormous stress and change.***

In the present global economy, India's ambitions are very clear. Its footprints in industrialisation are growing by leaps and bounds. Odisha is also witnessing a surge in industrialisation as many leading businesses are eyeing Odisha as a promising investment destination. The 'Make in India' campaign is adding further strength to this momentum. Rapid development of rural areas is emerging as another factor that compels power utilities to generate more in order to meet an increasing appetite for power consumption. This has thrown open an attractive opportunity to grow one's capacity and enhance profitability.

For OPGC, resilience is a reflex - a way of facing and understanding the ever-changing world of business of power generation. As a resilient company, OPGC is well prepared to face the growing demand for power with staunchness, make meaning of emerging challenges and improvise solutions as it moves closer towards adding significantly to its existing power generation capacity.



**Special Jury Commendation award conferred on OPGC in November 2015 by FICCI for excellent CSR work**



**OPGC Cricket Team lifted the Power Cup 2015 at Bhubneswar Odisha**



**OPGC being honoured with the Greentech Award, 2014**

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## LIST OF ABBREVIATIONS

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AES	AES Corporation
AHP	Ash Handling Plant
AOA	Articles of Association
APEX	AES Performance Excellence Projects
APGENCO	Andhra Pradesh Power Generation Corporation Limited
BOD	Biochemical Oxygen Demand
BOP	Balance of Plant
BTG	Boiler Turbine Generator
C&I	Controls and Instrumentation
CCTV	Close Circuit Television
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CHP	Coal Handling Plant
CMT	Construction Management Team
CO <sub>2</sub>	Carbon Dioxide
COD	Chemical Oxygen Demand
COP	Conference of the Parties
CSR	Corporate Social Responsibility
DG	Diesel Generator
DTP	Desk Top Publishing
E&C	Ethics and Compliance
EHS	Environment, Health and Safety
EM	Electrical Maintenance
EP	Entry Permit
ESP	Electrostatic Precipitator
Gol	Government of India
GoO	Government of Odisha
GP	Gram Panchayat
GRI	Global Reporting Initiative
GRIDCO	Grid Corporation of Odisha Limited
Gwh	Gigawatt Hour
HHs	Households
HR	Human Resources
ICAI	Institute of Chartered Accountants of India
ICSI	Institute of Company Secretaries of India
IEA	International Energy Agency
IGAs	Income Generating Activities
INDC	Intended Nationally Determined Contribution
IP	Integrity Pact & Internet Protocol
ISO	International Organisation for Standardisation
IT	Information Technology
ITPS	1b Thermal Power Station
JSA	Job Safety Analysis
KCAL	Kilo Calorie
KG	Kilogram
KL	Kilolitre
KRAs	Key Result Areas
KV	Kilo Volt
Kwh	Kilowatt Hour
LDO	Low Dropout
LED	Light Emitting Diode
LL	Labour License
LOTO	Lock Out Tag Out



LPG	Liquified Petroleum Gas
M <sup>3</sup>	Cubic Meter
MCL	Mahanadi Coalfields Limited
MGR	Merry Go Round
MHP	Mini Hydro Projects
MIS	Management Information System
MLD	Million Litres Day
M/M	Mechanical Maintenance
MoEFCC	Ministry of Environment, Forest and Climate Change
MS Scrap	Mild Steel Scrap
MT	Metric Ton
MUs	Million Units
MW	Megawatt
MWh	Megawatt Hour
NOX	Nitrogen Oxide
NSDC	National Skills Development Corporation
O&G	Oil and Grease
OCPL	Odisha Coal and Power Limited
OEM	Original Equipment Manufacturers
OHSAS	Occupation Health and Safety Assessment Series
OPD	Out Patient Department
OSPCB	Odisha State Pollution Control Board
PAT	Profit After Tax
PFC	Power Finance Corporation
PLF	Plant Load Factor
PMS	Performance Management System
PPA	Power Purchase Agreement
PRDS	Pressure Reducing and De-superheating System
R22	Chlorodifluoromethane
R&M	Renovation and Modernization
REC	Renewable Energy Certificate
REC	Rural Electrification Corporation
RPO	Renewable Purchase Obligation
RTI	Right to Information Act
SAP	System Application Processing
SDG	Sustainable Development Goal
SF <sub>6</sub>	Sulphur Hexafluoride
SHG	Self Help Group
SO <sub>2</sub>	Sulphur Dioxide
SPM	Suspended Particulate Matter
SS	Stainless Steel Scrap
TDS	Total Dissolved Solid
TG Hall	Turbine Generator Hall
TII	Transparency International India
TLM	Teaching Learning Material
TSS	Total Suspended Solid
USA	United States of America
WO	Work Order
WTP	Water Treatment Plant

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## Vision

A world-class power utility committed to generate clean, safe and reliable power, enhancing value for all stakeholders and contributing to national growth.

## Mission

To attain global best practices by adopting, innovating and deploying cutting edge solutions.

To achieve excellence in Reliability, Safety and Quality of power by creating a culture of empowerment and high performance.

To be a responsible corporate citizen having concern for employees, society and environment.

## Our Strengths

### Dedication

We are completely dedicated towards Safety, Health & Environment

### Integrity

Integrity is the foundation to our core principles of Honesty, Decency, Consistency and Courage

### Commitment

We are committed to generate and provide Clean, Affordable & Reliable Power

### CSR

We are committed to inclusive growth & holistic development of all sections of the society

### Corporate Governance

We are committed to conduct all affairs of the Company with Fairness, Transparency & Accountability





# From the Managing Director's Desk.....



“ The fulcrum of our approach to sustainability is positioning of our business as a part of the society and environment where everybody recognises their rights as well as responsibilities. OPGC encourages all its stakeholders to be a part of its journey to make it a rewarding experience for all.

**Indranil Dutta**  
Managing Director



this Sustainability Report states the unalterable philosophy that sustains the core of our business. Going forward, we will continue taking measures toward the realization of this philosophy. We are striving to strike a balance between the need of reduction of environmental impact of power generation and necessity to provide affordable power to the large part of the society who are still living without power. We are

With immense pleasure, I present OPGC's Second Sustainability Report to all our stakeholders. Besides conforming to the prescribed G-4 guidelines of the Global Reporting Initiative (GRI), the uniqueness of the report is the sincerity and approach used by OPGC's Sustainability Team for its preparation, keeping in mind the material issues confronting the company. An elaborate stakeholder engagement exercise helped us to prioritise key sustainability issues and enabled us to develop a more meaningful roadmap to be ready for future. This Sustainability Report presents our achievements against the targets in the economic, social and environmental areas, mainly known as the triple bottom line performance, with prime focus on safety, environmental protection, inclusive social development and good governance.

For us at OPGC, walking the path of sustainability is the only way to survive and succeed in a volatile, uncertain, complex and ambiguous business scenario and *developing resilience is the key to success*. With that in mind, we have always given high emphasis on the simultaneity of business as well as institution building. While we have brought stability in our business over the years, we have also built world-class processes, safety systems and IT infrastructure, developed talent and a culture of ethics & integrity.

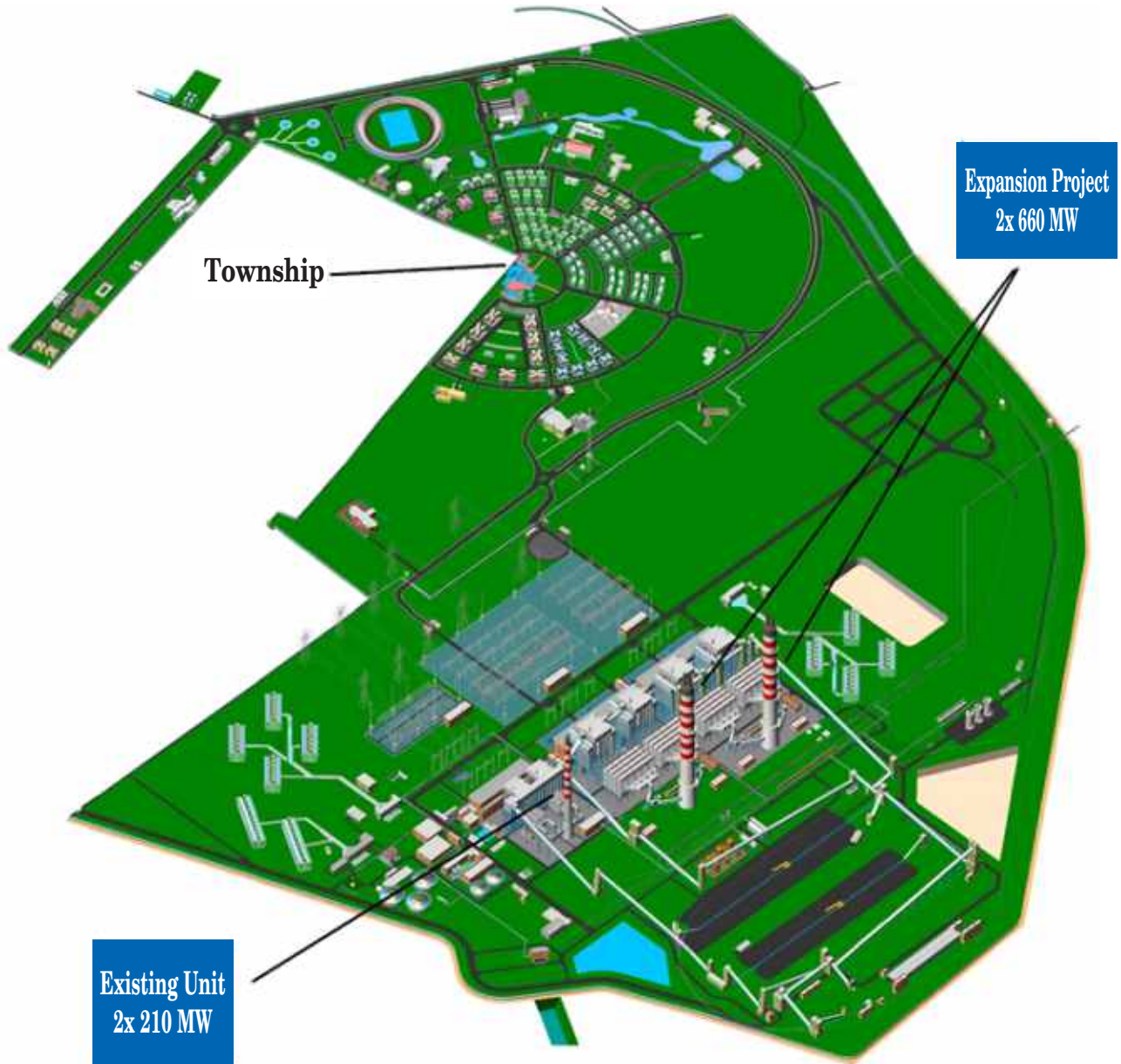
The Electricity sector in India today has become increasingly complicated, and in fact, is caught up in a vortex of unprecedented and drastic changes that throw up challenges which require resilience to survive and excel. Under these circumstances, the concept of “a resilient future” that forms the title of

relentlessly working towards reducing carbon emission per unit of power generated in our company to meet this goal. In the ongoing expansion project we have adopted advanced supercritical technology which is several steps ahead in efficiency of power generation resulting in lower carbon footprint. We are also adopting newer technologies and efficiency improvement tools in our operating power plant to improve upon the heat rate of the plant which also results in reduction of carbon emission. Simultaneously, we are working towards reducing the particle emission from our operating plant by retrofitting it with efficient environment protection technology. We are adopting energy efficient technology like LED lighting in the consumption side of the energy. We have also made some progress in introducing renewable energy in some of the areas of the plant.

Furthermore, we strive to contribute to the sustainable development of neighbouring communities through our Corporate Social Responsibility programme in the areas of sustainable livelihoods, education, water and sanitation and critical community infrastructure development with the active participation and engagement of stakeholders.

I take this opportunity to thank all our stakeholders who have contributed to the Company's achievements over the years and we are confident that they will continue to participate in our journey towards progress. We value our stakeholders' opinions as they help us in our pursuit towards sustainability and look forward to your feedback on this report.

# Layout of ITPS



Note: The above layout displays two expansion projects of 1320 MW (2x660 MW) each. However, OPGC is currently constructing only one expansion project consisting of units 3&4. Construction of units 5&6 may be taken up after suitable decision in this regard is taken.



# What to Expect from this Report?

OPGC is pleased to present before its stakeholders the Second Sustainability Report. The company's first sustainability report was prepared for 2013-14 in accordance with Global Reporting Initiative (GRI) G4 guidelines & Electric Utility Sector Supplement. This report contains data and information about OPGC's challenging journey of its gradual transformation into a resilient business organisation.

In this report, we have disclosed information on our material issues identified through extensive stakeholder engagement – both internal as well as external. The stakeholder engagement process was executed through a third party engaged by OPGC exclusively for the purpose, with a view to identify the material issues objectively and with neutrality. It conforms to the "in-accordance Core" option of reporting and contains information for FY 2014-15 and 2015-16.

This report underlines our commitment regarding transparent communication on our targets and progress on sustainability front to our stakeholders. This sustainability report highlights our performance across key focus areas: economic growth, care for environmental resources, social inclusivity and sensible governance.

With this version of our sustainability report, we have attempted to map our journey while making disclosures on our impacts across our value chain and plans of action to mitigate the same. The electricity sector faces a number of risks and challenges. Therefore, the Company's vision focused on its sustainability risks and performance challenges would help us set high standards, exceed defined metrics and strive for continuous excellence while robustly measuring progress.

The report boundary constitutes OPGC's only operational power station "IB Thermal Power Station" or ITPS located at Banharpali in Jharsuguda district of Odisha. Therefore, this report contains data and information for the identified material issues for IB Thermal Power Station (units 1 & 2) only.

Since our sustainability journey is still in its infancy, we firmly believe that continuous reporting is going to accrue many more benefits to OPGC in future than just disclosing information.

We highly value your feedback which may be sent to [sustainability@opgc.co.in](mailto:sustainability@opgc.co.in)



Note: The map on left is Map of India showing location of Odisha in purple colour . The map on right is Odisha Map showing location of Jharsuguda district and ITPS .

# Sustainability Strategy and Targets

OPGC's sustainability journey is now embedded in its **SUSTAINABILITY STRATEGY** which has following key features:

- Striving to achieve a world class safety standard and an incident free work place;
- Proactive approach to stakeholder engagement;
- Fostering innovative ideas to remain competitive and be a low-cost power producer by adopting appropriate risk management practices;
- Environment management keeping in view emerging global dynamics of climate change;
- Sustained increase in auxiliary energy efficiency and practicing international asset management standards;
- Ethical and effective supply chain management;
- Excellence in people management practices towards enhancing their strength to drive organisational innovations.

**By the end of 31st March 2018, the Company commits to achieve the following TARGETS:**

- Improved plant load factor, i.e. greater than 85%
- Improved heat rate, i.e. less than 10720 BTU/kWh (2703 kcal/kWh net heat rate)
- Reduced specific oil consumption, i.e. less than 0.57ml/kWh
- 100% disposal of scrap materials including e-waste through certified recyclers
- Invest 2% of annual pre tax profit in communities
- 100% replacement of street lights (tube/sodium vapour) with energy efficient LED lights (renewable solar/electric) on the ITPS township.
- Assessment of five leading suppliers in FY 2017-18.



# Our Approach to Sustainability



“ Sustainability strategy and practices are interconnected with every function of OPGC in a manner that they address core interests of the business and its diverse stakeholders.

**Alok Mukherjee**  
Director (Operations)



Electricity, undoubtedly, is a key driver of human progress. In fact, to maintain the society's way of life and economic development, we require continuous access to power at an affordable price. Given the impact of power on personal welfare and economic effectiveness, power generators are expected to maintain strict quality standards to provide their services at great cost competitiveness while achieving an outstanding level of environmental performance.

## International Agreements and the Business of Power Generation

The power sector is simultaneously one of the largest consumers of finite resources and also forms a fundamental input in any growth economy. In developing nations like India, where electricity is in short supply, social services such as health and education are constrained. Electricity utilities that are engaged in extending electrification, therefore, make an important contribution to alleviating poverty both in the individual household as well as at the societal level as well.

India currently suffers from a major shortage of electricity generation capacity, even though it is among the largest energy consumers in terms of capacity. The International Energy Agency (IEA) estimates that India needs an investment of at least over a hundred billion dollars to provide universal access of electricity to its population.<sup>1</sup>

Around 60% of India's current power generation capacity is based on coal, which is expected to remain the dominant power source in the future, and the government has plans to double coal output by 2020 and increase coal-based power generation capacity.<sup>2</sup>

The State of Odisha is poised for rapid industrial development and large use of electricity for industrial purpose for which the demand for electrical power is continuously increasing. Odisha is on the way to becoming an energy supplier to the grid. In the next 10 years, Odisha expects to be generating about 60,000 MW of power, most of which is based on coal (a multiple increase from the current 4,000 MW).<sup>3</sup>

## Climate Change Agreements, Policies And Regulations

In the last few years, several important international commitments and agreement were reached in the fields of sustainability and climate change. On September 25th 2015, countries adopted a set of goals to end poverty, protect the planet, and ensure prosperity for all as part of a new SUSTAINABLE DEVELOPMENT AGENDA, while on 5 October 2016, the threshold for entry into force of the Paris Agreement was achieved. The Paris Agreement is underpinned by 162 Intended Nationally Determined Contributions (INDCs) that detail 189 countries' plans to reduce emissions and enhance their resilience to climate impacts.

<sup>1</sup> <http://www.sciencedirect.com/science/article/pii/S136403211300395X>

<sup>2</sup> <http://www.ibtimes.co.in/india-double-coal-output-by-2020-even-without-private-participation-672428>

<sup>3</sup> <https://www.pwc.in/assets/pdfs/publications/2016/icc-pwc-coal-report-june.pdf>



The 2030 Agenda consists of 17 Sustainable Development Goals (SDGs), which are further broken out into 169 targets. These two agreements' far-reaching goals include eliminating global poverty and achieving zero-carbon, climate-resilient development.

In the national context, India's INDC include reduction in the emissions intensity of its GDP by 33 to 35 per cent by 2030 from 2005 level and to create an additional carbon sink of 2.5 to 3 billion tonnes of CO<sub>2</sub> equivalent through additional forest and tree cover by 2030.

As the government prepares to implement the strategies outlined in the INDC, the change in regulations and policy action that will follow will be the main driver for the different stakeholders to act. Market-based mechanisms (REC, PAT, RPO) have always been part of India's climate change mitigation approach. India was also a leading carbon market player in the Clean Development Mechanism (CDM) days.

India has adopted several ambitious measures for clean and renewable energy, energy efficiency in various sectors of industries, achieving lower emission intensity in the automobile and transport sector, non-fossil based electricity generation and energy conservation. The energy efficiency of thermal power plants will also be systematically and mandatorily improved. Additionally, the Ministry of Environment, Forest & Climate Change (MoEFCC), Government of India (GoI), has notified the revised standards for coal-based Thermal Power Plants in the country, with the primary aim of minimising impact. From 2017, thermal power plants across India will have to cut particulate matter emissions by as much as 40% and reduce their water consumption by nearly a third.

At the state level, the Odisha government has decided to focus on curbing discharge of waste from thermal power plants as part of its climate change action plan for next five years. Fly ash disposal has emerged as one of the biggest challenges before the Odisha government even as it is vigorously pursuing to make the state as coal-fired power hub of the country. The government, as part of its new action plan, will now initiate compilation of information from several studies and initiatives that have been done on fly ash and develop an operational plan including capacity building of the department concerned. A movement to 'clean coal' approaches is also being promoted with policy initiatives including switching

over to super critical technology, improvement of boiler efficiency, conducting life cycle analyses of thermal power plant according to CEA benchmarks, among others. Additionally, more emphasis would be given on implementation of zero liquid discharge from thermal power plants.

### **Transformation of the Power Sector**

The power sector, therefore, is entering a major transformation caused by the decarbonization and decentralization of power generation. Companies must deal with the increasing integration of renewable energies into the energy mix, which requires integrated power management instead of simple power generation. In emerging markets like India, industrialization and urbanization imply a huge need for additional sustainable generation capacity. At the same time, infrastructure developments must factor in concerns of external stakeholders, who increasingly raise their voices concerning large power projects. In addition, an uncertain and changing regulatory context increases risks for the very long-term investments typical in this industry. Electric utilities need to develop innovative business models that can generate new sources of load growth that fit this new business environment.

### **Accountability and Sustainability Reporting**

Against the background of these national and international regulations and policies, like the OPGC emerge, poses several challenges for organizations as there is a real and continuing demand for more information about how the business is dealing with society's requirement for transparency. Hence, OPGC is fully aware of the benefits of sustainability reporting and organizational transparency.

OPGC being a State Government Power Utility Company owes a great sense of responsibility towards providing reliable power, protection of environment, contribution to national growth and inclusive social development. Though generation of power through thermal sources is considered to be one of the most reliable ways, there are a number of associated risks like safety of its workforce, maintaining efficiency, progressively increasing environmental concerns, coal availability and its quality, fly ash utilization, employee retention, etc. OPGC's plans and courses of action are, therefore, sustainability-centric. OPGC believes in creating economic value causing minimal cost to environment and bio-diversity while striving to optimize social capital.

AES, as a global energy company, has been a strategic partner of OPGC since 1998. The 'Global Excellence' practices of AES and values like 'Put Safety First' have been very effectively inculcated by OPGC into its own organisational practices which has had profound and positive impacts on sustainability agenda of OPGC for over a decade and a half.

OPGC has a progressive CSR Policy towards inclusive community development, with well laid out vision, strategy and scope. The CSR Policy sets directions towards strategizing and executing corporate social responsibility projects and activities. Apart from this, other catalysing

instruments like Safety Values, Code of Conduct, Training & Development Policy, Rewards and Recognition Policy, IT Policy and EHS Policy immensely help OPGC manage its performance in economic, environmental and social domains to achieve excellence.

**Sustainability Team**  
**Odisha Power Generation Corporation Ltd.**





MAJOR INDICATORS OF PERFORMANCE

ENERGY

Implemented 4 Apex projects per year for improving efficiency

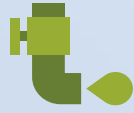


> 82% average PLF since 2005-06

WATER



Water consumption reduced below 3m<sup>3</sup>/MW through water recycling and re-use



Achieved reduction of specific freshwater consumption by 38%

Achieved reduction in specific Oil Consumption by 35%



Set up 1 tonne capacity Bio-gas plant using kitchen waste to reuse energy for cooking



Achieved 100% ash water recycling

ENVIRONMENT HEALTH & SAFETY



Obtained 14001 & 55001 Certification

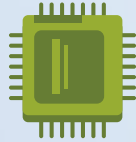


Achieved 18001 Certification

WASTE



100% Utilisation of Ash brick in new construction



100% E-waste sent to Authorised Recyclers



EHS Training conducted for 1000 persons per year



Executed SAP Environment and Health Safety module

4 years of LTI free operations completed  
12.7 Million LTI Free man hours completed

SOLVENT RECOVERY



Hazardous waste being processed through authorised agencies

TREE PLANTATION



More than 300,000 trees planted so far  
More than 33% green belt exists all around the site

PEOPLE



2900 man-days of different trainings imparted  
No workplace harassment reported

COMMUNITY



50,000 beneficiaries reached  
10 thematic interventions implemented

More than 50 activities under execution



# OPGC

## A Brief Chronicle of its Journey since Inception

The Odisha Power Generation Corporation Ltd. (OPGC) was founded on November 14, 1984, as a wholly owned Government Company of the State of Odisha with the main objective of establishing, operating and maintaining large thermal power generating stations. In the pursuit of its objective, OPGC established Ib Thermal Power Station (ITPS) having two units of 210 MW each (total 420 MW) in the Ib valley area of Jharsuguda District in the State of Odisha. While one of the existing units became operational in 1994, the second one started generating electricity since 1996. The entire generation from these units is committed to GRIDCO on the basis of long-term (valid for a thirty year period starting 1996 until 2026) Power Purchase Agreement (PPA).

After divestment of 49% of the equity shares in favour

of AES Corporation, USA, in early 1999, OPGC with its present ownership structure is one of its kind in the country and has an excellent track record of plant performance and earnings. Today, OPGC has firmly established its credentials as a successful

power generating company both technically & commercially by providing clean, safe & reliable power. With the available resources and fuel security in terms of allocation of captive mine in favour of its subsidiary company Odisha Coal & Power Limited (OCPL), OPGC has rightfully capitalised on its credentials and experience to further expand its capacity by adding 2X660 MW units.

**OPGC is a profit making PSU of the State of Odisha in the 'GOLD' category with an excellent track record of physical and financial performance.**

### Share Holding Pattern in OPGC

Shareholder	Percentage	No. of Shares	Amount (in Rs.)
Govt. of Odisha	51	2500109	2500109000
AES India Pvt. Ltd.	16.24	796178	796178000
AES OPGC Holding (incorporated in Mauritius)	32.76	1605887	1605887000

### Business Risks and Mitigation Strategy

OPGC has been successful in achieving improvements in plant and EHS performance especially after AES' strategic acquisition in spite of several challenges. However, for moving to the next level and to be at par with other global AES businesses, special focus needs to be given for developing a good work culture, which would be sustainable and enduring.

There had been challenges with employees of OPGC and contractor workmen to consistently navigate the business on safety track. The culture of safety was at infant stage when AES came in and it took years to achieve a state, which is comparable to any of the best performing plants within the country. Safety initiatives namely zero tolerance safety policy, stop work authority, reward & punishment policy on safety and contractor safety

management policy, etc. are being followed up in the recent past. OPGC has achieved ISO 14001 and OHSAS 18001 certifications.

Over the years special focus has been given to bring in perceptible development in working culture. Building a strong and experienced team has been given prime importance. The next target is to implement asset management framework in a sustainable manner.

OPGC has developed business objectives to meet the strategic plans while simultaneously managing massive physical portfolios of assets efficiently. To a large extent, success hinges on whether or not asset-related risks to the value stream are adequately identified and managed in such a way that minimizes the total cost of ownership throughout an asset's lifetime. Asset management is primarily designed to support the delivery of an

organizational strategic goal, which in turn is aimed at meeting expectations of the stakeholders. The business goal is starting point of development of primary elements like policies, objectives, strategies and plans.

These, in turn, direct the optimal combination of life cycle activities to be applied across the portfolio of asset systems and assets (based on their criticality, condition and performance). This connective thread is a key feature of OPGC's asset management system, providing clear "line of sight" from the organizational direction and goals down to the individual and day-to-day activities. Similarly, looking upwards, the monitoring of asset problems, risks and opportunities provide the factual basis for adjusting and refining asset management strategies and plans, through a process of continuous improvement and keep informing stakeholders by way of adjustments to the Business Plan. Moreover, since the plant is now 21 years old, we understand the need for a comprehensive plant life audit to

ascertain asset conditions, bottlenecks, degradation and factors contributing to degradation and arrive at an action plan for Renovation and Modernization (R&M). OPGC is working towards achieving ISO 55001 certification process in recognition of its asset management standard implementation process.

OPGC works with an extensive group of stakeholders and it works proactively to ensure all stakeholders' needs are met. It is acknowledged by OPGC that each stakeholder's needs are different. These needs are met by different groups within the business. It continues regular engagement processes with all of its key stakeholders in order to promote values of OPGC and explore opportunities for further improvements in the business.

### Present Operational Units (2X210MW) at ITPS

As its maiden venture, OPGC had set up Ib Thermal Power Station with two units with a capacity of 210 MW each in the IB Valley area of Jharsuguda District in the State of Odisha at a cost of ₹ 11,350 million. GRIDCO purchases the entire power generated and payment is secured through an Escrow Account and revolving Letter of Credit.



Existing 2X210 MW Thermal Power Plant

### Mini Hydro Projects: A Step towards Diversification

OPGC has also setup seven (07) Mini Hydro Projects (MHP) in different parts of the state. Out of these three are presently operational and generating power.

1.	Biribati	2 X 325 KW
2.	Kendupatna	2 X 250 KW
3.	Andharibhangi	2 X 325 KW

With this modest portfolio to start with OPGC plans to make a larger foray into the renewable space in the times to come. In the backdrop of COP21 (refers to Paris Climate Conference which is officially known as the 21st Conference of the Parties or COP) targets adopted by India on 02 October 2016, shifting to production of renewable energy over the next 20 years has become imperative to reduce dependence on fossil fuel. Hence, beginning this journey with baby steps assumes great significance while adding to its journey towards attaining resilience.



An image of Biribati MHP (2X325 KW)

### Expansion Project (2X660 MW)

As a part of adding resilience to its future growth plan and diversification, construction work of 1320 MW expansion project of OPGC (Units 3 and 4: 2X660MW) was kicked off on 23/02/2014 at the IB Thermal Power Station premises. At present, construction of OPGC Units 3 and 4 is in full swing at a location adjacent to the existing power plant. Debt financing of Rs. 7,624 Crore (after off-loading of loan related to coal mine in favour of OCPL) has been tied up jointly with Power Finance Corporation (PFC) and Rural Electrification Corporation (REC). The power plant is being constructed under two EPC packages, Boiler – Turbine – Generator (BTG) supply and erection, which has been awarded to BHEL and Balance of Plant (BOP) supply and erection, which has been awarded to BGR Energy Systems Ltd. Besides above two major projects, one Merry-Go-Round (MGR) and an Ash Pond have been awarded to M/s L&T Ltd. and M/s Balaji Engineers Pvt. Ltd. at a cost of Rs. 1026 Crores and Rs. 199.75 Crores respectively. The total amount of investment for the two new units is Rs 10,165 Crores.

Now the plant has completed 82.3% of planned construction in BTG (Boiler-Turbine-Generator) section while in BOP (Balance of Plant) section the status of construction is 75%. The planned commissioning date for both the units (3 & 4) is March 2018.



The New Power Plant (L) and its Switchyard (R)



# Corporate Governance in OPGC

Corporate Governance deals with how a corporate is governed. It is all about promoting corporate fairness, transparency and accountability. Some of the objectives of Corporate Governance are – attaining disclosure and transparency in the way a corporate is governed; fixing accountability of controllers and managers towards other stakeholders; fixing corporate responsibility; integrity and probity in financial reports, etc. All these are governed by various provisions of the Companies Act, 2013, in the case of OPGC.

Accordingly, provisions relating to board constitution, board meetings, board processes, directors, general meetings, audit committees, related party transactions, disclosure requirements in financial statements, etc. are strictly adhered to.

The governance standards in OPGC comply with the accounting standards formulated by the Institute of Chartered Accountants of India (ICAI), which is an autonomous expert body in India that provides guidelines for disclosures of financial information. Section 129 of the Companies Act, 2013, inter alia, provides that the financial statements shall give a true and fair view of the state of affairs of the company comply with the accounting standards notified under Section 133 of the Companies Act.

OPGC also diligently follows the Secretarial Standards issued by the Institute of Company Secretaries of India (ICSI), another autonomous expert body that issues secretarial standards in terms of the provisions of the Companies Act, 2013, specifically with respect to general and board meetings.

The essence of Corporate Governance at OPGC can be captured in the simple principle - achievement of business goals through fair and transparent means. OPGC is highly concerned with ensuring safety to its people, maximizing shareholder returns, optimizing operational performance, attracting and retaining talent, honouring commitments to clients and partners and making a positive impact on the lives of communities in its neighbourhood. OPGC is highly focused on enhancement of long term value creation for all stakeholders without compromising on values like integrity, social obligations,



“Sound governance practices in OPGC act as the foundations of trust and confidence for all its stakeholders and form the basis of sustainability of our business through a value based approach towards achieving corporate objectives in a transparent and ethical manner.”

**Manoranjan Mishra**  
Company Secretary



environment and regulatory compliances.

## The Structure of Governance

The management of the affairs of OPGC vests with the Board of Directors. The Shareholders' Agreement and Articles of Association (AoA) envisage equal number of nominees from both the investors in the Board of Directors. While the Chairman and Director (Finance) are nominated by Govt. of Odisha, the Managing Director and the Director (Operations) are the nominees of the strategic investor, AES Corporation, USA. The present Board of Directors consists of 6 Directors – 3 nominated by each partner (GoO & AES). Principal Secretary or Commissioner-cum-Secretary, Department of Energy, Government of Odisha, is



the ex-officio Chairman of the Company. The Managing Director is in-charge of the day-to-day management under the supervision of the Board. They in turn are assisted by a team of dedicated and experienced professionals in various fields. It is one of the three companies in the State Sector which has signed a corporatization agreement with GoO which has bestowed considerable freedom to the Board of Directors in managing the affairs of the company.

Accordingly, provisions relating to board constitution, board meetings, board processes, directors, general meetings, audit committees, related party transactions, disclosure requirements in financial statements, etc. are strictly adhered to.

The governance standards in OPGC comply with the accounting standards formulated by the Institute of Chartered Accountants of India (ICAI), which is an autonomous expert body in India that provides guidelines for disclosures of financial information. Section 129 of the Companies Act, 2013, inter alia provides that the financial statements shall give a true and fair view of the state of affairs of the company or companies, comply with the accounting standards notified under Section 133 of the Companies Act.

OPGC also strictly follows the Secretarial Standards issued by the Institute of Company Secretaries of India (ICSI), another autonomous expert body that issues secretarial standards in terms of the provisions

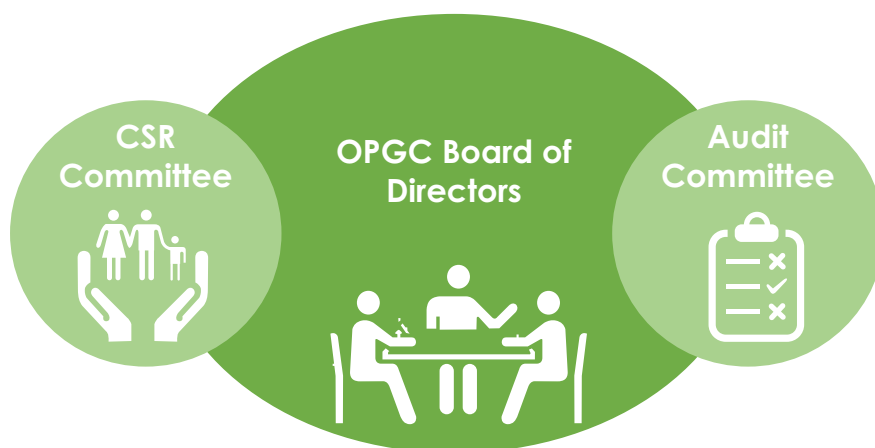
OPGC has a well-placed internal control system aimed at achieving efficiency in operations, optimum utilization of resources and compliance with applicable laws and regulations. It ensures that all assets are safeguarded, protected and the transactions are authorised, recorded and reported correctly. The Internal Auditors independently evaluate the adequacy of internal controls and audit the majority of the transactions in value terms.

The observations and recommendations for improvement of the business operations are reviewed by the management and are reported to the Audit Committee. Internal audit programme of the company covers the project management and operational controls and ensures adherence to policies and systems. Though

of the Companies Act, 2013, specifically with respect to general and board meetings.

### The Structure of Governance

OPGC is not a listed company. However, as a measure of good Corporate Governance, OPGC has volunteered to adopt governance norms of the corporate administration and in order to provide assistance to the Board of Directors in fulfilling the Board's oversight responsibilities, an Audit Committee has been constituted by the Board of Directors comprising of three Directors, two of whom are Non-executive Directors. Audit Committee of the Board of Directors, regularly reviews the adequacy and effectiveness of internal audit environment and monitors implementation of internal audit recommendations including those relating to strengthening of OPGC's internal control system against potentially unscrupulous, unethical and fraudulent transactions. Major terms of reference of the Committee include overseeing the financial reporting process, review of the financial statements, ensuring compliance with the regulatory guidelines, review of internal audit reports, recommending appointment and remuneration of the internal statutory auditors to the Board of Directors and review of adequacy of internal control systems and internal audit function. Composition and terms of reference of the Audit Committee are aligned with the spirit of the Companies Act, 2013.



OPGC does not have a structured Committee to monitor business risks but through various policies and practices, it mitigates the perceived risks of business, environment and social issues.

### **Ensuring Accountability and Transparency: Effectuating Right to Information**

The Right to Information Act (RTI), 2005, was assented by the President of India on 15th June, 2005 and notified on 21st June, 2005. Some sections of the Act, relate to obligations of Public Authorities for maintenance and computerization of record/information, designation of Public Information Officer (PIO), etc.

In view of applicability of the RTI Act, OPGC has decided to act on its own in order to provide information to citizens and to maintain accountability and transparency. OPGC has designated a Public Information Officer (PIO) and an Appellate Authority who are dealing with the information requests of the public in compliance with the applicable provisions of RTI.

### **Ethics and Integrity: The Fulcrum of OPGC's Business**

The success of OPGC is built brick by brick on the trust of its employees, customers, and the general public. The best way to gain that trust is to demonstrate ethics and integrity in business, not because of statutory requirements, but because it is the right thing to do. This is what we, as an organisation, believe in.

We believe that evolving to a value-based system to make ethical choices and greater disclosures to

become more transparent is the only alternative available to businesses. OPGC in order to enhance ethics / transparency in the process of awarding procurement and execution contracts, has signed a Memorandum of Understanding (MoU) with Transparency International India (TII) in 2011. Under the said MoU, OPGC enters into a contract called Integrity Pact (IP) with all participating bidders where-under both OPGC and bidders commit to adopt and follow a fair and transparent bidding process. Since December 2011, the IP has become an integral part of bidding process and is a qualification requirement for all tenders for supply and work execution worth Rs. 2.5 crores and above. An Independent External Monitor has been appointed with the consent of the TII for redressal of complaints of the bidders, if any, and making general review of the tendering process. Regular meetings are organised with Independent external monitor.

Further, in order to strengthen its commitment to conduct business with integrity and in compliance with all regulations and laws, the company has adopted and Ethics and Compliance (E&C) Charter. The E&C Charter envisages adoption of Code of Conduct containing anti-bribery and anti-corruption provisions and ethical standards for all its employees and setting up of a help-line for reporting suspected violation of law, Code of Conduct and enabling investigation thereof through a Compliance Officer. The company is confident that everyone associated with it shall merit, enjoy respect and esteem of the public and also the wider business community in which it operates, including contractors, suppliers and government authorities.





## OPGC Board of Directors 2014-15



**Suresh Mohapatra, IAS**  
Chairman OPGC  
(16.09.2014-03.12.2015)



**P.K. Jena, IAS**  
Chairman OPGC  
(29.07.2012-15.09.2014)



**Sankaran Subramaniam**  
Managing Director OPGC  
(22.01.2014-31.03.2015)



**H.P. Nayak, IRAS**  
Director Finance OPGC  
(Since 28.09.2012)



**Indranil Dutta**  
Director Operations OPGC  
(12.04.2011-31.03.2015)



**Hemant Sharma, IAS**  
Director OPGC  
(Since 20.05.2013)



**A Srinivasa Rao**  
Director OPGC  
(14.05.2005-31.03.2016)

## OPGC Board of Directors 2015-16



**Rajesh Verma, IAS**  
Chairman OPGC  
(04.12.2015-16.01.2017)



**Suresh Mohapatra, IAS**  
Chairman OPGC  
(16.09.2014-03.12.2015)



**Indranil Dutta**  
Managing Director OPGC  
(Since 01.04.2015)



**H.P. Nayak, IRAS**  
Director Finance OPGC  
(Since 28.09.2012)



**Alok Mukherjee**  
Director Operations OPGC  
(Since 26.10.2015)



**Sukanta Mohapatra**  
Director Operations OPGC  
(01.04.2015-25.10.2015)



**Hemant Sharma, IAS**  
Director OPGC  
(Since 20.05.2013)



**A Srinivasa Rao**  
Director OPGC  
(14.05.2005-31.03.2016)

# Stakeholder Engagement and Materiality Analysis

## *A Question of Priorities*

Stakeholders are broadly identified as those groups or individuals who can be reasonably expected to be significantly affected by our activities, products and/or services and whose actions can reasonably be expected to affect ability of OPGC to successfully implement its strategies and achieve its goals. The identification of stakeholders originates from vision, values and beliefs of OPGC. This indicates that all our efforts are directed towards safety, productivity, profitability, quality, customer satisfaction and social development, whilst establishing value partnership with relevant internal and external stakeholders. OPGC has systems and procedures to identify, prioritise and address the needs and concerns of all its key stakeholders across businesses and units. The Company's top management and concerned departments actively engage with its stakeholders through structured processes that comprehensively cover all stakeholder groups.

Stakeholder engagement is a formal process of comprehensive relationship management through which OPGC engages with its stakeholders in an effort to align mutual interests, to reduce risk and progress towards the triple bottom line, i.e. the company's economic, social, and environmental performance. Considering the change in stakeholder perspectives and demands over the years, OPGC has been devising newer strategies and ways to develop positive relationships with all its stakeholders.

Hence, a fundamental implication for OPGC is to proactively value its stakeholders, by enacting programmes aimed at embedding and addressing their relevant concerns. With the changing regulatory scenario, dynamics of power sector and upgrade in reporting requirements in the form of GRI G4 guidelines, OPGC has firmly decided to take action on fulfilling enhanced disclosure and reporting requirements.

For Stakeholder Engagement the major objectives were:

- Identify broad range of stakeholders
- Characterise each stakeholder group by understanding their roles, power, and responsibilities

- Categorise their needs, expectations and problems
- Prioritise and draw a strategy to address the requirements of those stakeholder groups which have the most potential to affect the company's operations.

For the materiality assessment, OPGC conducted study with the help of an external agency. The methodology adopted for conducting the study initiated with defining the scope of the study which would give the best representation of the entire business followed by identification of material issues and categorisation of the same under the Economic, Environmental, and Social dimensions. An interview based mechanism was adopted to understand concerns and expectations of various stakeholders.

Stakeholder identification and prioritisation was done in consultation with the OPGC corporate team and ITPS core team. The prioritisation done was based on the impact that stakeholders may have on OPGC's business, and vice versa. Customised checklists were prepared for various stakeholder groups and feedback on the same was solicited through response on questions. Stakeholders were divided into Internal and External categories. The internal stakeholders being the employees, the main external stakeholders included Community members, Media, Suppliers & Contractors, NGOs, Local Administration, Customer (GRIDCO), and coal supplier (MCL). The Materiality Matrix and stakeholder specific questions were developed and discussed with internal and external stakeholders to gain insights and perception on the material issues for the Company.

Materiality assessment is the process of refining and assessing potential economic, environmental, social and governance issues that could affect a business. These issues are called material to the company's performance and are of prime significance to the key stakeholders.

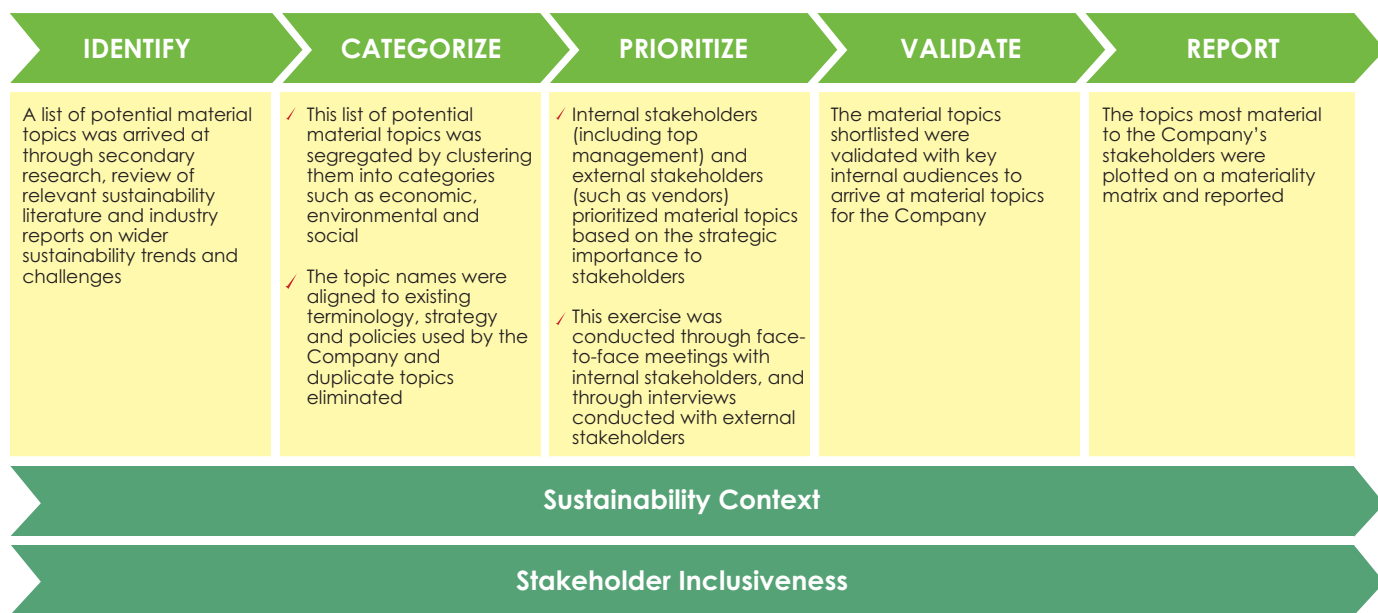
However, an issue is considered material when it impacts the ability of the Company to remain profitable, environment-friendly and responsible to the societies in which it operates. Material issues are condensed into a list of topics that could provide direction to the Company's stakeholder engagement strategy, targets, and reporting for sustainable development. For OPGC, materiality

# Stakeholder Engagement Strategy

Stakeholders	Mode of Engagement and Frequency	Stakeholders' Concerns and Issues	Response to Stakeholders' Concerns and Issues
Government and Regulatory Authorities	Environment Statement on annual basis Meetings on monthly/quarterly basis Reports/communication Visits as and when required Annual Reports and regulatory filings	Regulatory compliances related to forest and land, emission, local and national developmental issues, infrastructural activities, Energy efficiency requirements & other applicable Acts like the Factories Act, 1948, the Environment Protection Act 1986, etc.	Detailed environmental parameters provided in environment chapter of this Sustainability Report
Business owners and customer Partner (GoO, AES & GRIDCO)	Interactions/Meetings on almost daily basis Official communications	Review of business performance Profit and Loss Employee welfare Labour issues Environmental and regulatory norms	Economic performance given in chapter on finance & performance  Employee Welfare, labour issues covered in Human Capital Chapter  Environment and regulatory norms covered in chapter on environment
Employees	Employee meetings on quarterly basis Regular Communication with Employees through website/emails, bulletin boards, newsletter & internal newsletter, etc.	Employee benefits and compensation Performance management and recognition Employee training and development Employee retention plans Employee safety and welfare	Information on employees provided in Human Capital chapter
Community	Interactions/meetings on regular basis OPGC Newsletter Joint review meetings	Community development initiatives Infrastructural projects/ sanitation, education, health, etc.	Covered in chapter on Corporate Social Responsibility of this Sustainability Report



assessment forms basis for identifying the risks and opportunities, helps in future trend-spotting and for ensuring transparency in conducting business. The following process was adopted words identifying and prioritising stakeholders and materiality.

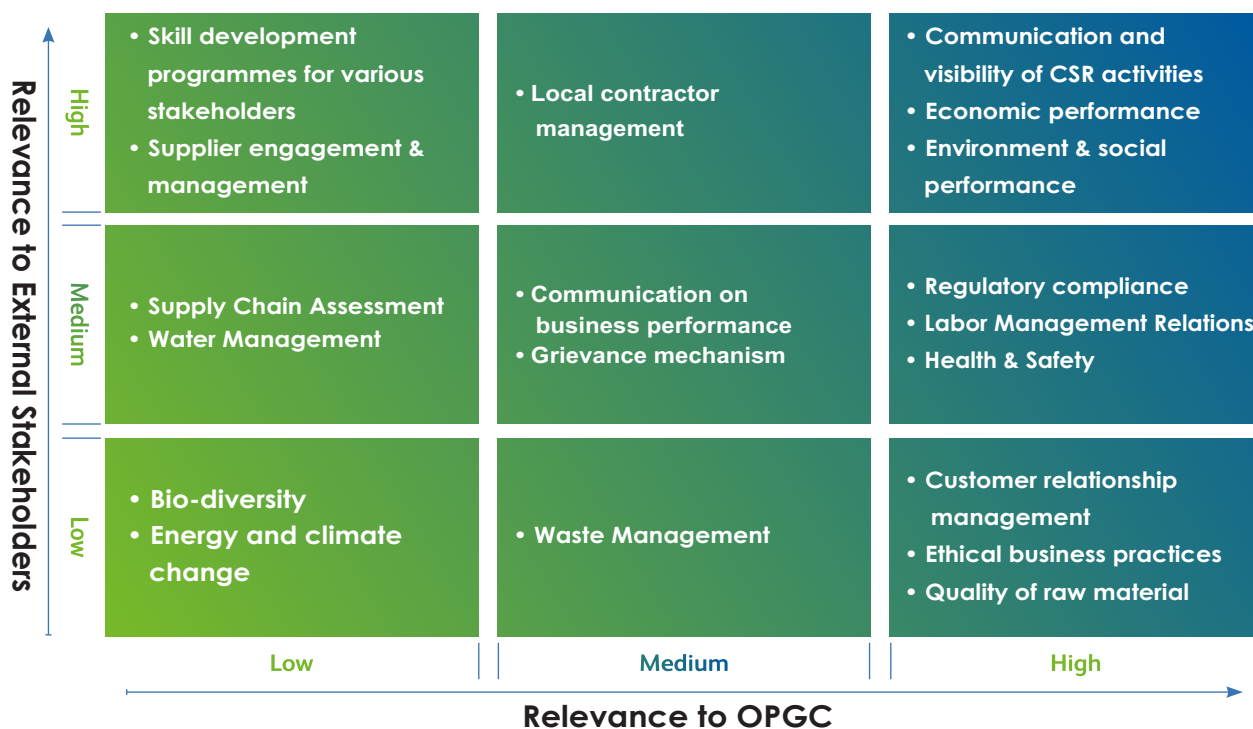


The material issues prioritized by the stakeholders have been plotted on a Materiality Matrix below that maps the concerns of the external stakeholders with the priorities of internal stakeholders.

### Sustainability Disclosures

A wide range of issues can be material to a Company, depending upon size of the industry, raw material usage, location and its impact on the surroundings. This required OPGC to commission an externally guided consultation process with all stakeholder groups, viz. suppliers, customer, civil society, government authorities, select employees and communities. To get the management perspective, internal leadership and senior management were consulted through one-on-one interviews and prioritisation of material issues were identified to be measured, managed and disclosed through this sustainability reporting process.

## Materiality Matrix





“ At OPGC, we are well aware that profitability of our company is a key driver of our long-term sustainability. I am of the firm belief that to a great extent our profitability is shaped by the way we take care of our environment – both natural and social.

**Hara Prasad Nayak**  
Director - Finance ”

The power sector is one of the principal driving forces of the global economy, to which it mainly contributes through very significant annual investments and by creating both direct and indirect employment. The India Energy Outlook (2015) of the International Energy Agency projects that in the New Policies Scenario, electricity demand more than triples from the current period till 2040, rising by 4.9% per year on average from 900 terawatt-hours (TWh) in 2013 to almost 3,300 TWh by the end of the projection period. India accounts for almost 17% of the increase in global electricity demand from 2013 to 2040, an amount roughly equivalent to today's power consumption in Japan, Middle East and Africa combined. Per-capita electricity consumption grows from over 710 kWh to more than 2000 kWh per year, an average annual growth rate of 4.0%. Installed power capacity in India is expected to grow three-and-a-half-times, from 290 GW in 2014 to over 1075 GW in 2040.<sup>1</sup>

This kind of power/ electricity sector scenario is expectedly characterised by the need to guarantee safe, competitive and sustainable supply. The power sector continues to hold bright growth possibilities with persistent shortage across the country, even as income level and urbanization continue to rise steadily. There are over 300 million Indians still without access to electricity. Transmission & distribution capacity build up is behind installed generation capacity, choking free flow of power to all the consumers and keeping power tariffs depressed.

### Economic Performance Strategy

In order to keep pace with India's growth story, the Company is confident of robust growth in the coming years and it is also aware of the challenges ahead. Inflationary pressures, coupled with rising fuel cost (coal), natural calamities, safety & security and issues related to environment and social performance of our operations, may play a substantial role in future business outcomes.

OPGC believes in steady growth with a strong focus towards business practices that have minimal impact on the environment; and initiating several socio-economic measures in the community in the vicinity of operations. In its mission to improve economic performance of the Company, it has forayed into constructing and operating two new units (2X660 MW) which are expected to be operational from March 2018.

The Company is also exploring new benchmarks for operational efficiencies, investing in climate friendly technology and redefining traditional paradigms. As OPGC strives to lead the reform process for sustainable power 'towards building a resilient future', it is also committed to safeguarding environment for future generations.

<sup>1</sup> [https://www.iea.org/publications/freepublications/publication/IndiaEnergyOutlook\\_WEO2015.pdf](https://www.iea.org/publications/freepublications/publication/IndiaEnergyOutlook_WEO2015.pdf)

### Business Highlights of 2014-15 and 2015-16

- Revenues of the Company grew consistently over the years.
- It grew from Rs. 6226.40 million in 2013-14 to 6300.05 million in 2014-15 to 7059.54 million in 2015-16.
- It increased by 12.05% between 2014-15 and 2015-16.
- Between the two reporting years, profit of the Company fell by 23.74% although profitability remained intact.

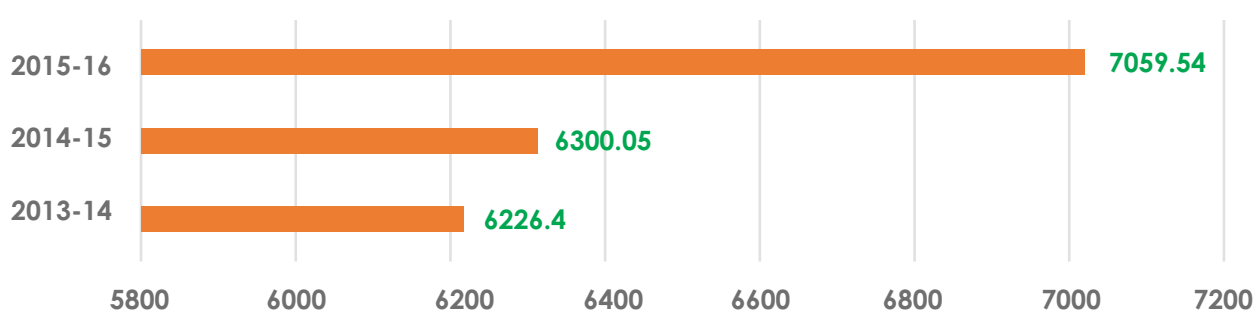
## Economic Value Generated and Distributed

Economic Value	2015-16	2014-15	2013-14
A. Economic Value Generated	<b>Rs. in Million</b>	<b>Rs. in Million</b>	<b>Rs. in Million</b>
a. Revenues	7059.539	6300.050	6226.401
B. Economic Value Distributed			
b. Operating Costs	4605.184	3568.989	3935.12
c. Employee Wage & Benefits	599.392	423.076	453.051
d. Payments to Providers of Capital	46.542	-	-
e. Payments to Government	633.322	790.565	562.521
f. Community Investments	26.834	11.709	6.776
Sub-total B (b+c+d+e+f)	5911.274	4794.339	4950.692
C. Economic Value Retained (A-B)	1148.265	1505.711	1275.717

## Select Financial Highlights

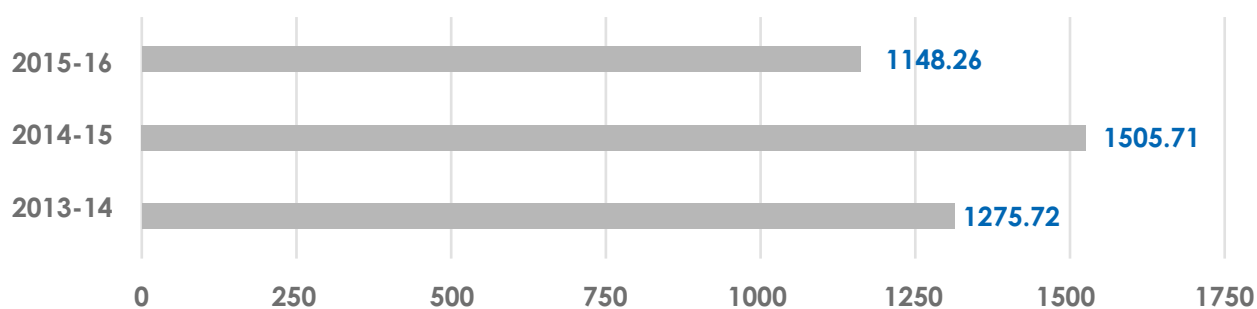
	2015-16 (Rs. Million)	2014-15 (Rs. Million)	2013-14 (Rs. Million)
Revenue	7059.54	6300.05	6226.40
PBDIT	2047.33	2487.88	2022.20
Depreciation & Amortization	219.20	191.61	183.97
PBT	1781.58	2296.27	1838.22
Taxes	633.32	790.56	562.51
PAT	1148.26	1505.71	1275.71

## TOTAL REVENUES (IN Rs. MILLION)

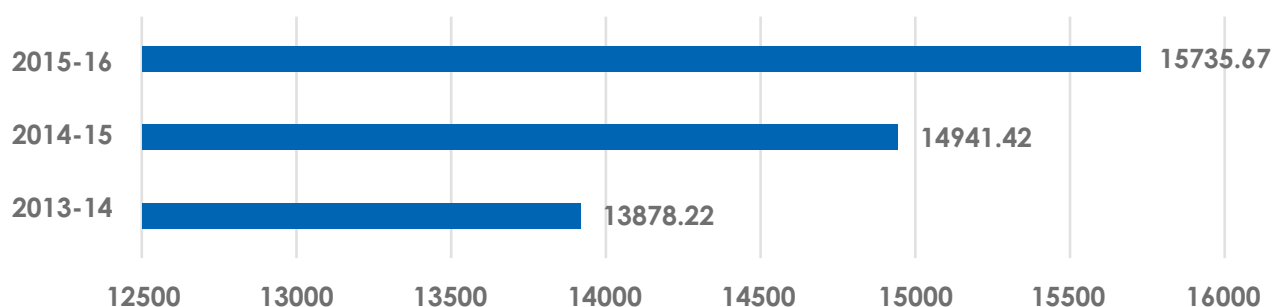




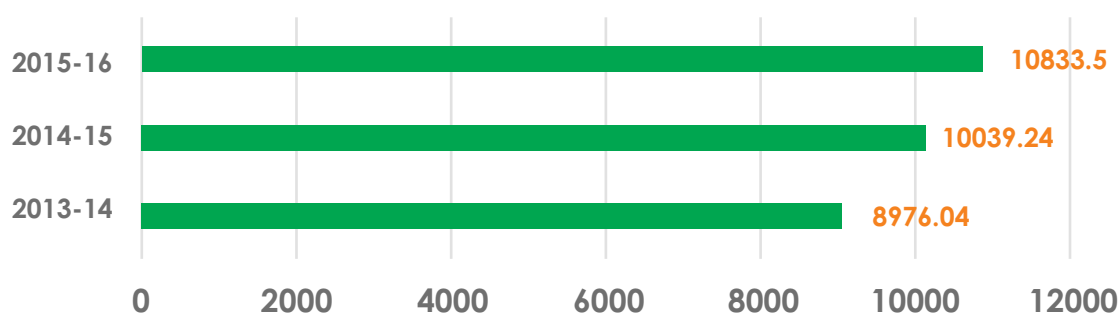
### PROFIT AFTER TAX (RS. IN MILLION)



### COMPANY NET WORTH



### RESERVES AND SURPLUS (IN RS. MILLION)



## Financial Position

Financial Performance	2015-16 (Rs. Million)	2014-15 (Rs. Million)	2013-14 (Rs. Million)
Share Capital	4902.17	4902.17	4902.17
Net Worth	15735.67	14941.42	13878.22
Total Debt	16257.03	8369.24	4198.73
Tangible Assets	2121.33	2128.94	2061.18
Intangible Assets	7.38	7.89	7.46
Cash & Investments	5014.76	8489.66	8426.68
Current Assets	10288.04	12304.45	9741.50

## Per Share Data

	2015-16 (Rs. Million)	2014-15 (Rs. Million)	2013-14 (Rs. Million)
EPS (Rs.)	234.24	307.15	260.24
Book Value (Rs.)	3209.93	3047.91	2831.03
Dividen Per Share (Rs.)	60.00	75.00	65.00

### Unique Strengths that Support OPGC's Consistent Performance

- This is a Pithead Power plant with coal field located nearby & a Merry go round system for Coal transportation.
- There is adequate water availability from the nearby Hirakud Reservoir with an Intake Channel connected to Reservoir.
- Long-term PPA with the State Power Transmission Utility i.e. GRIDCO for 100% off-take.
- Payment security mechanism comprising Escrow Account and revolving Letter of Credit with GRIDCO.
- Infrastructure like land and common facilities are already available for expansion of two more units.
- A dedicated workforce of superior skills, experienced engineers & support staff

### Superb Operational Performance: The Power that Propels OPGC to Glory

OPGC's economic performance hinges on its plant performance on different parameters. Knowing this fully well, the operations team of OPGC stationed at ITPS give their best to everything they do. This has resulted in plant performance that is one among the best in the country.

In 2014-15, OPGC recorded a total generation of 2798.919 MUs corresponding to an average Plant Load Factor (PLF) of 76.07% at plant availability of 78.23% against the previous year performance of 2855.902 MUs on PLF of 77.62% at plant availability of 84.78%. The reduction in PLF is partly attributable to loss of generation due to inferior quality coal compared to budget and partly due to 57 days planned shutdown of Unit 2 for executing the ESP upgrade for meeting the statutory emission norms. In 2015-16, OPGC recorded a total generation of 3117.316 MUs corresponding to an average Plant Load Factor (PLF) of 84.5% at plant availability of 91.27% against the previous year performance of 2798.919 MUs on PLF of 76.07% at plant availability of 78.23%.

#### Highlights of 2014-15

- Lowest Unit start-up time achieved after annual outage in Unit 1: 15.5 Hrs (since inception)
- Lowest oil consumption for cold start-up in Unit 2: 102 KL (since inception)

#### Highlights of 2015-16

- OPGC achieved 1st position in terms of PLF of 84.5% among the state sector utilities.
- 9th position in all sectors at national level.
- There was uninterrupted running of Unit 1 of 112 days, which was a record since inception of the plant.



“OPGC's sustainability measures include gradual modernization of the power-plant systems because we are aware that it pays through benefits accrued by improved plant capacity, heat-rate and reduced emissions.

**Sukanta Mohapatra**  
GM (O&M)

**APEX (AES Performance Excellence Projects) at OPGC**

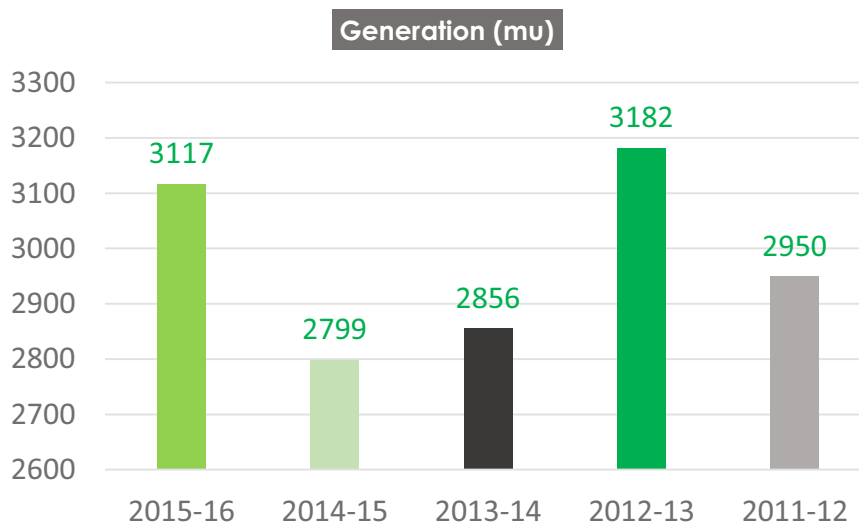
Through AES Performance Excellence (APEX) programme, our business finds innovative ways to solve operational challenges, which also result in environmental benefits and reduced impact. Continuous efforts are being made for improving plant reliability and productivity through renovation/ modernisation and system upgradation as required.

2014-15 Achievements:

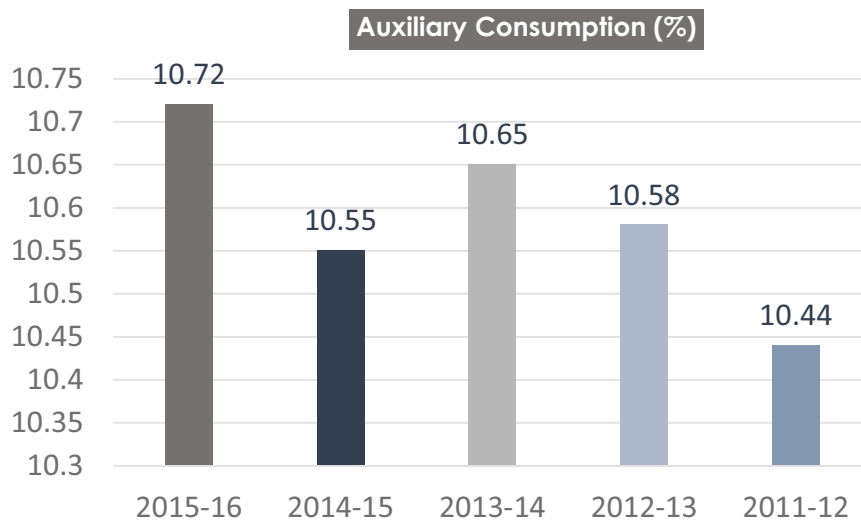
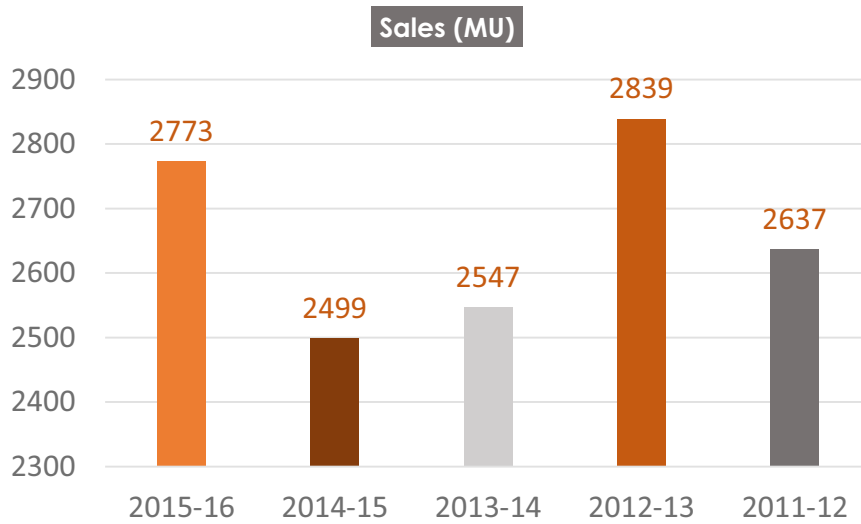
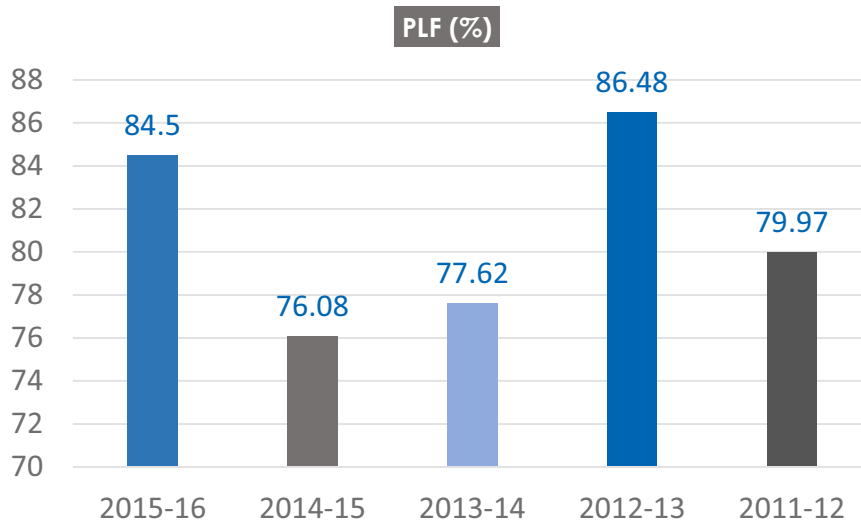
Project-1: Plant performance improvement through Energy Conservation.	Project-2: Strengthening the Job Safety Analysis programme.
Benefit: OPGC earned US \$ 0.79M in 2014 and expect to earn US \$ 1.60M for 2015 and onwards at project company level.	Benefit: There is no direct tangible benefit through this APEX project but intangible benefits help OPGC to strengthen its safety management system.

2015-16 Achievements:

Project-1: Reduction of unit start up time.	Project-2: Improving Auxiliary steam pressure control	Project-3: Inventory optimization through Electronic supply chain management facility.
Benefit: OPGC saved 375 K US \$ per annum by reducing unit start up time.	Benefit: Overall gain of 321K US \$ per annum by increasing HP turbine output enhancement and improvement in Heat rate.	Benefit: Inventory reduction of 2.5% by the end of year 2018.







# Path Towards Reliability

## Setting of New Targets

### OPGC Achieves Highest PLF in FY15 Amongst State Sector Thermal Power Units in India

Odisha Power Generation Corporation (OPGC) added yet another feather to its illustrious cap of achievements by achieving highest annual PLF (Plant Load Factor) of 84.5% amongst all the State Sector thermal power units in the country in the financial year 2015-2016. As per the report published by Central Electricity Authority, 1b Thermal Power Station of OPGC has achieved highest 84.5% PLF spanning April 2015 to March 2016 and is followed by Andhra Pradesh Power Generation Corporation (APGENCO) which achieved 78.45% PLF.

During the last financial year, OPGC's consistent efforts to maintain efficient power production at its 1b Thermal Power Station located in Jharsuguda district of Odisha, as evident from the report of CEA, has certainly aided Odisha in meeting the power requirements in the state.

Customer Satisfaction Analyses are conducted on regular basis and appropriate steps are taken to further improve performance in areas identified and prioritised.

### 1b Thermal Power Station bags ISO 9001: 2008 Certification

1b Thermal Power Station of OPGC has bagged ISO 9001: 2008 certification in January 2016. The certification came after months of rigorous scrutiny and audit by internationally reputed certification agency Bureau Veritas Certification Holding SAS. The process, which includes two stages of stringent audit and then meeting various compliances to the satisfaction of the agency, started in June 2015 and ended in December of 2015. Meeting the requirements of ISO 9001: 2008 standards signifies quality management system that will be of real benefit to an organization to help manage the business effectively and put in place best practice methodology. With this certification, OPGC gets the quality systems that will provide foundation to better customer satisfaction, staff motivation and continual improvement. There have been no reported incidents or fatalities to the public involving company assets (Units 1 & 2) in the reporting period.

### Apart from this, 1bTPS is also certified with ISO: 14001 & ISO: 18001

#### Owners and investors benefit by:

- ❑ Increased return on investment
- ❑ Improved operational results
- ❑ Increased market share
- ❑ Increased profits
- ❑ Mandatory internal audits & reviews

#### Customers and users benefit by receiving the products and services that are:

- ❑ Conforming to the requirements
- ❑ Dependable and reliable power supply
- ❑ Available when needed

### OPGC achieves performance excellence, breaks 20 years' record

OPGC has achieved lowest ever specific oil consumption of 0.359 ml/kWh and lowest ever number of unit start-ups of 21 in the year 2014 and has broken last twenty year's record.





“ We view ‘plant efficiency’ as being fundamental to sustainability of our operations. What this means for us is doing much more with less resources as it inevitably makes operations incrementally more sustainable.

**Sanjay Garhwal**  
Plant Manager



Painting Competition was held on the theme: “Save Energy, Save Planet”.

**Energy Conservation Day** was celebrated on 12th & 13th December 2015 at Ib Thermal Power Station, Banharpali, with the objective of creating awareness on conservation of energy amongst employees, their family members, students and residents of ITPS Township.

### Net Energy Output

Net energy generated by the utility in GWh	2014-15 : 2498.54 2015-16 : 2772.82
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Average generation efficiency of thermal plant by energy source and regulatory regime	2014-15	2015-16
Average annual efficiency of the energy source.	35.48%	35.44%
Net efficiency as a percentage (electricity sent out/energy input)	31.73%	31.64%

### Average Plant Availability Factor

	2014-15	2015-16
Total No. of Hours of Planned Outage in the reporting period	2564.88	961.27
Total No. of Hours of Forced Outage in the reporting period	1144.50	503.31
The average availability factor by energy source and by regulatory regime (Central Electricity Authority)	78.83	91.66



### Installation of Rooftop Solar Plant: A Step towards use of Non-conventional Energy Source

In its endeavor to use green technology, OPGC has taken a small step by commissioning 3000 watt roof top solar power plant at 220 KV switch yard control room building. The project was installed during March 2016. The power generated from this roof top solar plant is being used for indoor illumination of switch yard control room.

In view of successful operation, OPGC has further taken a few more projects in ITPS area like 5000 Watt Roof Top Solar power plant at Ash Pond and Solar water heater of 900 Liters at Plant Canteen. All these are aimed at reducing Auxiliary Power consumption and promote the use of renewable energy.



### Implementation of new Pressure Reducing and De-superheating Station (PRDS) System

PRDS is a process requirement for a steam turbine Unit. This system is used for supplying conditioned steam to auxiliary systems namely (a) vacuum ejectors (b) gland sealing extraction steam and (c) soot blowing/steam for coal Mill inerting.

A new modified PRDS system has been installed at ITPS for improving efficiency, for enhancing operational convenience and to lower maintenance cost. This implementation has resulted in increased steam flow which has improved Steam Turbine output by 88.7 kW. This implementation has resulted in reduction of gross heat rate by 1.6kcal/kWh. This has resulted in decrease of carbon emission due to reduction in coal consumption. The modified new PRDS system is installed to take care of the issues of old system. The new PRDS system was installed on 20th October, 2015 in Unit-1 and on 2nd February, 2016 in Unit-2 successfully.



# Protecting the Environment

## Our Fundamental Responsibility

OPGC is firmly committed to environmentally sustainable business practices. We seek to minimize the impact of our business operations on the environment, and work with partners globally to develop and use innovative approaches to build a low-carbon future. We believe that technology can empower everyone to achieve a more sustainable future for our planet. We work to hold ourselves accountable in our own operations and to help others solve pressing environmental and energy challenges. In its journey towards this end, OPGC has adopted a Systematic Environmental Management System and has prioritized Environmental Protection at par with its plant's operational activities. Driven by its commitment for producing clean power, OPGC has devised a well-defined Environment Policy for minimizing environmental impact arising out of operational activities associated with generation of Thermal Power and preserving surrounding ecology. The

entire environmental management has been driven as per ISO 14001 environmental management system, since the plant has attained the standard in 2005.

Protection of environment has always been the prime concern of OPGC and efforts are made to keep the environment clean and healthy with continual improvement. Significant Environmental aspects and impacts are being assessed in systematic manner to minimize the impacts on environment.

### The significant environmental impacts are on:

1. Air
2. Water
3. Land
4. Noise
5. Natural Resources



“Environmentally responsible behavior is an essential part of our philosophy and we continually recognize that this contributes strongly to long-term success of OPGC. Environmental protection will remain a dominant issue in our scheme of things, which means, everything that we do, we can account for.

**Umakant Pahi**  
Head EHS



Thermal power plants basically thrive on energy in the form of fuel and water for production of electricity. Therefore, the main raw material used at Ib Thermal Power Station is coal. LDO and diesel are used as start-up fuel and to run DG sets, respectively, in case of emergency/ forced shutdown, etc. Other chemicals like grease and lubricants are used as associated process material only. There are no semi-manufactured goods or packaging material required in our process since electricity is transmitted through lines directly to the GRID. Coal gets completely used in the process to generate the final product i.e. electricity and by-products like fly ash. OPGC has found new avenues towards utilising the fly-ash generated in the process of electricity generation.

However, other chemicals and lubricants get completely used up in the process and therefore, cannot be recycled or reused.



**Some highlights of the environment management and pollution control measures are:**

- Operating the plant with valid Air and Water consent to operate.
- ESPs operate with optimized condition. Step has been taken to retrofit ESPs to operate with particulate matter concentration- 100mg/Nm<sup>3</sup>.
- Continuous emission being monitored for SPM, SO<sub>2</sub>, NO<sub>x</sub> and CO
- Ambient Air Quality being monitored through four online continuous monitoring stations.
- Real time emission data and ambient air quality data is being transmitted to SPCB server.
- Ash water is being 100% recycled for reuse in Ash handling. Reuse of other Liquid effluent inside plant after required treatment. Only up to 2% of its liquid effluent is being discharged meeting effluent discharge norm.
- Safe Ash Pond Management has been ensured under expert consultancy service from IIT, Chennai.
- Fugitive dust control measures like Dust suppression, Dust extraction and Dust agglomeration are in place in coal handling plant.
- Plant and Colony Roads are black topped to minimize fugitive emission.
- Coal is being transported by rail wagons preventing transport related coal dust fugitive emission.
- 01 MLD capacity Sewage Treatment Plant is operating in ITPS for eco- friendly treatment and reuse of domestic effluents for Green belt

- watering.
- 01 MT capacity Kitchen waste based biogas plant is operating at ITPS for eco-friendly disposal of kitchen waste generated in Colony and Plant.
- Hazardous wastes are being handled, stored and disposed following OSPCB's stipulations in authorization permit.
- E-wastes are handled and disposed as per applicable rules.
- Developed adequate green belt and high density plantation in and around its campus with 34% land coverage.
- Observes World Environment Day, Earth Day and develop environmental awareness within its campus and community.

**Ash Management Strategy:**

- Yearly Ash Generation- 10.5 lakh MT (approx.).
- Land reclamation, Ash brick & block manufacturing, Ash Pond Dyke raising, Road construction, Asbestos Plant off-take and Cenosphere.
- Zero use of red bricks, 100% ash brick is being used inside plant and for periphery construction activities.
- Provision made for required quantity of Dry ash collection and storage.





## Greening the Environment

Trees are amongst the most significant elements of biodiversity. Their key role in ecosystem dynamics is well known.

Plantation and green belt development in and around our plant for abatement of air pollution, attenuation of noise and serving as sink for CO<sub>2</sub> have always been considered to be very important aspects of environment management in OPGC. We have created many a success stories of tree plantation, greening activities, horticulture and flower cultivation.

OPGC is having a Clean and Green environment with around three lac trees planted in and around the campus. The company has also preserved its acquired forest land of around hundred hectares for self-generating forest tree species. The company has also established a nursery with a facility to develop 25000 saplings every year. Besides, greenhouse nursery is also established for developing flowering plants. It is a matter of pride that the Company has fulfilled 33% greenbelt and tree coverage required as per existing regulatory norms.

OPGC also framed an action plan to plant fifty thousand more trees within its campus in the next three years as a voluntary environment protection initiative. The sole objective of these initiatives is to provide a sustainable and clean business environment in the locality.



## Total Water Withdrawal by Source

Sources	Water Withdrawn in m <sup>3</sup> /yr		
	2013-14	2014-15	2015-16
Surface water	8671323	8478270	9393470
Ground water	NA	NA	NA
Rainwater collected & stored	NA	NA	NA
Waste water	NA	NA	NA
Municipal water supplies	NA	NA	NA
Specific Water Consumption (m <sup>3</sup> /MWh)	3.04	3.03	3.01

## Total Volume of Water Recycled & Reused

Sources	Quantity of water Recycled/Reused (in m <sup>3</sup> /yr), approx		
	2013-14	2014-15	2015-16
Waste water ( Ash water recycling, BTG effluent recycling, Cooling Water Blow down etc)	8455000	8381151	9284813

## Energy consumption within the organisation

Energy	Quantity & Unit		
	2013-14	2014-15	2015-16
Total fuel consumption (Coal in MT)	2576597	2321287	2788435
Total fuel consumption (LDO in KL)	2052.064	1563.654	1323.562
total electricity generated (MU)	2855.902	2798.919	3117.316
total electricity consumption (MU)	304.146212	295.157967	334.158756
total electricity sold (MU)	2547.122	2498.546	2772.82

## Energy Intensity

Energy Consumed in Million Joules			Energy consumed per unit production		
2013-14	2014-15	2015-16	2013-14	2014-15	2015-16
1094926363	1062568681	1202971522	10.65%	10.55%	10.72%

## Energy saved due to conservation and efficiency improvements

Initiatives	Quantity & Unit		
	2013-14	2014-15	2015-16
Process Redesign	Not captured	Not captured	268431 kWh
Conversion and retrofitting of Equipment	4556080 kWh	7292040 kWh	
Changes in Personnel Behaviour	Not captured	Not captured	4200000 kWh
Any initiative to reduce fuel consumption reported in EN3	14065 MT of coal	19430 MT of coal	340 MT of coal
Total Energy Saved (Tons of Oil Equivalent)	4609	6452	693.8

## Direct Greenhouse Gas (GHG) Emissions (Scope 1)

Sources of emission	Total emissions in weight, MT CO <sub>2</sub>					Method of calculation/estimation
	2011-12	2012-13	2013-14	2014-15	2015-16	
1 Fuels Consumption (Coal) as reported in EN3, for electricity generation	3097656	3340674	2998697	2938865	3273182	CO <sub>2</sub> baseline database by CEA userguide version 9.0

## Greenhouse Gas (GHG) Emissions Intensity

Sources of emission	Total emissions per unit production			Method of calculation/estimation
	2013-14	2014-15	2015-16	
Power Generation	1.05 t CO <sub>2</sub> /MWh	1.05 t CO <sub>2</sub> /MWh	1.05 t CO <sub>2</sub> /MWh	CO <sub>2</sub> baseline database by CEA userguide version 9.0

## Emissions of Ozone-depleting Substances by Weight

Name of Ozone Depleting substances	Source of Ozone Depleting Substance	UOM	Year				
			2011-12	2012-13	2013-14	2014-15	2015-16
R 22	Consumption	Kg	427	366	305	366	183
SF <sub>6</sub>	Consumption	Kg	150	50	100	50	50

## NO<sub>x</sub>, SO<sub>x</sub> and other Significant Air Emissions by Type and Weight

		2013-14	2014-15	2015-16
Pollutants	Unit	Total Emissions		
NO <sub>x</sub>	lb	7545708	6698842	8940163
SO <sub>x</sub>	lb	47976572	41976589	53162428
Stack				
Particulate matter	lb	4779988	4238450	4945048

## Total Water Discharge by Quality and Destination

Discharge in m <sup>3</sup>				
Source of waste water	2013-14	2014-15	2015-16	Destination
Combined effluent Discharge (Cooling Tower Drift Loss & Gravity Sand Filter Backwash) after treatment & quality conformation	66014	97119	108657	Hirakud Reservoir

Water Quality parameters	Limits	Before Treatment	2013-14	2014-15	2015-16
			After treatment	After treatment	After treatment
Quantity (m <sup>3</sup> /Year)			66014	97119	108657
Temp(IN) oC	T(O)- T(I) = <5 OC	Not measured	24.3	24.6	25.4
Temp(OUT) oC			26.5	27.1	28.8
pH	5.5- 9.0		7.2	7.29	7.6
TSS, mg/ltr	100		18.7	13.5	34.9
O&G, mg/ltr	10		0.75	0.84	0.9
TDS, mg/ltr	2100		256	226	282
BOD, mg/ltr	30		4	3.2	3.3
COD, mg/ltr	250		33.5	30.4	32.8



## Total Weight of Waste by Type and Disposal Method

Type of wastes (as on date stored/ generated)	Qty (2013 -14)	Qty (2014 -15)	Qty (2015 -16)	Disposal method	How the waste has been disposed
<b>Non-hazardous</b>					
1. MS Scrap (Ton)	324.429	975.786	92.735	Recycling after temporary on site storage	Being disposed to scrap dealers
2. SS Scrap (Ton)	2.5	0	0	-do-	In stock
3. Used & waste Batteries (Nos)	280	30	11	-do-	Buy back or sold to authorized suppliers
<b>Hazardous waste</b>					
1. Used oil (KL)	71.2	13.365	13.65	Recycling after temporary on site storage	Being disposed to authorized recyclers/reprocessors
2. Used grease (MT)	9	6.12	3.24	Recycling after temporary on site storage	Being disposed to authorized recyclers/reprocessors
3. Spent Resin (Kg)	1600	3000	0	Stored in underground concrete chamber	Final disposal to CHT

## Total Environmental Protection Expenditures and Investments by type

Activities	2013-14 (in Rs.)	2014-15 (in Rs.)	2015-16 (in Rs.)
Treatment of waste	200000	4956210	2624123
Purchase & use of emission certificates ( Consent Fee)	800000	2004079	2147184
Depreciation of related equipment, maintenance, operating material, services and related personnel cost	0	14444298	32334306
Insurance for environmental liability	70665	53757	95730
Clean up costs including costs for remediation of spills as reported in G4-EN24	0	0	0
Environmental education and training & awareness campaign	100000	110000	118000
External services for environment management	0	585393	620107
External certification of management systems	161000	67751	70000
Extra expenditure to install new technologies	130000000	229694269	4752306
Extra expenditure on green purchases	0	0	19994296
Others (Plantations, etc.)	0	400000	85000
	<b>₹ 13,13,31,665</b>	<b>₹ 25,23,15,757</b>	<b>₹ 6,28,41,052</b>

- Zero significant spill during the period from 2014-15 to 2015-16
- No grievance related to environment reported during the period

### Action Plan for Protection of Bio-diversity

Biodiversity is a fundamental component of our long-term business strategy. We are aware that our business depends on healthy ecosystems to treat and dissipate waste, maintain soil and water quality and help in controlling air composition. By preserving and halting biodiversity loss, we aim to develop a strong bio-sustainability business environment in and around our plant site.

We have developed working plans generally complementary to the objectives of wildlife conservation. Some of those key action plans are:

- To construct and operate plant machineries and equipment with minimum water, air and noise pollution impacts
- To encourage the natural regeneration through fire protection, closure from grazing and felling.
- To enrich the micro edaphic conditions and ensure maximum conservation of soil and water through proper soil conservation measures.
- To supplement the existing green belts by planting the indigenous species in gaps.
- To boost up growth of Sal and other valuable species inside campus by preservation and protection principle.
- To protect the wildlife in general and endangered species in particular to save them from extinction.
- To eradicate man-animal conflict.



## Human Capital

### At the Core of OPGC's Strengths

OPGC as an organisation is alive to the fact that a strong alignment between a comprehensive array of organisational elements is essential for a relatively high level of success related to sustainability. Such elements include organisational vision, structure, information systems, culture and competencies.

OPGC's vision and mission statements have been framed through a bottom-up approach and the theme of sustainability permeates through these statements. Multiple interventions are carried out for dissemination and actualisation of the vision and mission.

Appropriate organisational structure has been established to drive the sustainability agenda. HR makes conscious and conscientious efforts for development of key capabilities to usher in sustainability framework and has built sustainable HR systems and processes, such as behavioural and technical competency matrix, gap analysis and designing and implementing appropriate interventions. Appropriate Key Result Areas (KRAs) as well as assessment of competencies have been integrated into the Performance Management System (PMS). HR has multiple roles of collaborator, orchestrator, moderator, assessor, business partner and change agent to bring in and implement sustainable business practices and OPGC HR is conscious to live up to its role.

Ability to attract, engage and retain the right set of people and align them to the company's vision, mission, strategy and philosophy in connection with



Sustainability of an organisation or its business model significantly hinges on its people. It is the people of an organisation and their endeavours which eventually positions an organisation on the road to sustainability.

**Paritosh Mishra**  
Senior GM-Human Resources

sustainability agenda is a primary role for HR and OPGC HR has created appropriate systems for fructifying the same through divergent approaches such as Market Compensation Structure, Project roll and deputation from the strategic partner-AES. Needless to mention that OPGC is an equal opportunity employer and follows non-discriminatory approach in respect of gender, religion, caste, creed and region. Rewards and Recognition system has been put in place for managing employee expectations and sustaining the systems and processes devised for ushering in a culture of performance orientation and meritocracy. Industrial Relations scenario remain cordial and harmonious. Basic principles of protecting the human rights permeate through the systems and processes are embedded in OPGC.

Data on important aspects and indicators of OPGC's human resources are presented in tables below.

### Total Number of Employees by Employment Contract and Gender

2014-15

Region	Male		Female	
	Permanent Contract	Temporary Contract	Permanent Contract	Temporary Contract
Corporate Office	54		5	
ITPS (1&2)	384		14	
MHP	14	13	0	0
CMT	55	100	4	5
<b>TOTAL</b>	<b>507</b>	<b>113</b>	<b>23</b>	<b>5</b>



2015-16

Region	Male		Female	
	Permanent Contract	Temporary Contract	Permanent Contract	Temporary Contract
Corporate Office	55		8	
ITPS (1&2)	379		12	
MHP	14	13	0	0
CMT	66	123	5	6
<b>TOTAL</b>	<b>514</b>	<b>136</b>	<b>25</b>	<b>6</b>



**In-house Safety Training**





Total Workforce by Employees and Supervised Workers and by Gender

2014-15

Level/Category	Location	Corporate Office		ITPS (1&2)		MHP		CMT	
		M	F	M	F	M	F	M	F
Senior Management		2	0	2	0	0	0	5	0
Middle Management		5	0	54	3	1	0	60	0
								58	
Junior Management		17	1	67	4	2	0		6
Workmen		30	4	261	7	11	0	14	1
Fixed Term Contract		5	0	3	0	0	0	0	0
Third Party Contract (Outsourced)		5	0	35	5	0	0	19	2
Trainee/Apprentices		0	0	0	0	0	0	0	0
Other		0	0	0	0	0	0	0	0
<b>Total</b>		<b>64</b>	<b>5</b>	<b>422</b>	<b>19</b>	<b>14</b>	<b>0</b>	<b>156</b>	<b>9</b>

2015-16

Level/Category	Location	Corporate Office		ITPS (1&2)		MHP		CMT	
		M	F	M	F	M	F	M	F
Senior Management		3	0	3	0		0	4	0
Middle Management		6	0	56	2	1	0	71	0
Junior Management		19	1	75	5	2	0	72	7
Workmen		28	7	245	5	11	0	12	1
Fixed Term Contract		1	0	3	0	0	0	0	0
Third Party Contract (Outsourced)		2	0	18	4	0	0	23	2
Trainee/Apprentices		0	0	0	0	0	0	0	0
Other		0	0	0	0	0	0	0	0
<b>Total</b>		<b>59</b>	<b>8</b>	<b>400</b>	<b>16</b>	<b>14</b>	<b>0</b>	<b>182</b>	<b>10</b>



Total Number and Rates of New Employee Hires and Employee Turnover by Age Group, Gender and Region

2014-15						
Region	Male	Female	<30	30-50	>50	TOTAL
Corporate Office	0	0	0	0	0	0
ITPS (1&2)	4	1	5	0	0	5
MHP	0	0	0	0	0	0
CMT	73	1	12	59	3	74
<b>TOTAL</b>	<b>77</b>	<b>2</b>	<b>17</b>	<b>59</b>	<b>3</b>	<b>79</b>

2015-16						
Region	Male	Female	<30	30-50	>50	TOTAL
Corporate Office	3	0	2	0	1	3
ITPS (1&2)	8	1	5	2	2	9
MHP	0	0	0	0	0	0
CMT	37	1	16	22		38
<b>TOTAL</b>	<b>48</b>	<b>2</b>	<b>23</b>	<b>24</b>	<b>3</b>	<b>50</b>

Total Number and Rate of Employee Turnover During the Reporting Period, by Age Group, Gender and Region

2014-15

Reason/Region	Corporate Office	ITPS (1&2)	MHP		TOTAL
Death in Service	0	4	0	0	4
Resigned	2	10	0	10	22
Retired	0	1	0	0	1
Dismissal	0	0	0	0	0
<b>TOTAL</b>	<b>2</b>	<b>15</b>	<b>0</b>	<b>10</b>	<b>27</b>

2015-16

Reason/Region	Corporate Office	ITPS (1&2)	MHP	CMT	TOTAL
Death in Service	0	2	0	0	2
Resigned	0	5	0	15	20
Retired	0	11	0	0	11
Dismissal	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>15</b>	<b>33</b>

Total No. of Employee Turnover During the Reporting Period by Age and Gender.

TURNOVER (2014-15)						
		Corporate Office	ITPS (1&2)	MHP	CMT	TOTAL
Gender	Male	2	15	0	10	27
	Female	0	0	0	0	0
Age	<30	1	8	0	0	9
	30-50	0	3	0	9	12
	>50	1	4	0	1	6
	<b>OVERALL</b>	<b>2</b>	<b>15</b>	<b>0</b>	<b>10</b>	<b>27</b>

TURNOVER (2015-16)						
		Corporate Office	ITPS (1&2)	MHP	CMT	TOTAL
Gender	Male	0	16	0	15	31
	Female	0	2	0	0	2
Age	<30	0	3	0	3	6
	30-50	0	4	0	11	15
	>50	0	11	0	1	12
	<b>OVERALL</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>15</b>	<b>33</b>





### Return to Work and Retention Rates after Parental Leave by Gender

Employee Category		Total No. of employees entitled to parental leave	Total No. of employees who availed parental leave	No. of employees who returned to work after availing leave	Reason for not returning for others, if any	No. of employees retained by organisation after returning from parental leave for at least 12 months after their return to work
Executives	Male	N/A	Nil	Nil	N/A	N/A
	Female	All	Nil	Nil	Nil	N/A
Non-Executives	Male	N/A	Nil	Nil	N/A	N/A
	Female	All	Nil	Nil	Nil	N/A
2014-15 (All executives male)		5	5	5	N/A	4
2015-16 (All executives male)		3	3	3	N/A	3

### Percentage of Employees Receiving Regular Performance and Career Development Reviews

Employees by category		Nos. Receiving Review		Total No.	%
		2014-15	2015-16		
<b>Executives</b>	Male	268	308	576	100%
	Female	15	15	30	100%
<b>Non-Executives</b>	Male	316	296	612	100%
	Female	12	13	25	100%
<b>Total</b>		<b>611</b>	<b>632</b>	<b>1,243</b>	<b>100%</b>



**A Team Building Exercise in Progress**

## Composition and Breakdown of Employees per Category According to Gender, Age Group, Minority Group Membership, and Other Indicators of Diversity

Employee Category	AGE Group						Status		Total
	<30		30-50		>50		Reserved	General	
	Male	Female	Male	Female	Male	Female	Male /Female	Male /Female	
Executive	28	1	101	10	86	1	46	181	227
Non-executives	0	0	125	5	168	6	60	244	304
<b>Total</b>	<b>28</b>	<b>1</b>	<b>226</b>	<b>15</b>	<b>254</b>	<b>7</b>	<b>106</b>	<b>425</b>	531

\*Male/Female bifurcation is not provided by HR Dept. for Reserved and General categories

\*OPGC does not discriminate on the basis of religion so data on the basis of religion is not maintained

OPGC proactively has developed various systems to ensure that issues like discrimination does not occur. Existence of employee grievance redressal mechanism enables immediate cognizance of the employee grievances. Discrimination of any kind based on age, gender, caste, race or religion, etc. is strongly discouraged. Its business ethics lead a way to fair judgements and equal opportunity. There has not been any instance of any kind of human rights violation at OPGC so far. In addition, OPGC has a Complaints Redressal Committee in place since August 2014 to prevent as well as redress sexual harassments at work place under existing provisions of law. No cases of sexual harassment has been reported during the period covered under this report.

- **No grievances about labor practices registered.**
- **No incidents of discrimination reported.**



### Contractor Workforce

Contractors are engaged in Construction, Maintenance and Operation in the following areas:

- |                     |                   |
|---------------------|-------------------|
| 1. Admin.           | 11. IT            |
| 2. CHP              | 12. SAP           |
| 3. WTP              | 13. EHS           |
| 4. Plant Civil work | 14. Engg.Service. |
| 5. E & M.           | 15. MGR.          |
| 6. M/M.             | 16. Operation     |
| 7. Ware House       | 17. Colony Area   |
| 8. C & I            | 18. Ash Pond      |
| 9. AHP              |                   |
| 10. Silo            |                   |

FY 2014-15		FY 2015-16	
Total contractor mandays	Average Mandays	Total contractor mandays	Average Mandays
276617	31244	291082	33680

## Training & Development

### Philosophy and Objectives

The basic philosophy of OPGC's Training and Development Policy is to make training an effective instrument in transforming OPGC into a learning organization. The objectives of this Policy are to make learning one of the fundamental values of the Company, ensure value addition through training to the overall business processes, institutionalize learning opportunities that supplement work experience, integrate organisational and individual developmental needs, enable employees to keep abreast with the latest knowledge and skills and enable them to undertake current and future responsibilities in a more effective manner, provide linkages between the different functionaries of training activity and provide linkages of training activity with overall Human Resource function.

Development of the training strategy is based on the overall business plan and identify overall priority areas for the organisation, including new initiatives planned.

### The Training & Development Process

Training and development follows a four-stage process.

- a. Identification of training needs: Training needs are identified for each employee, based on the:
  - Competencies and skills identified and gaps identified through Performance Management Process
  - Future business and departmental requirements
  - Individual Development Needs for Top Talent within OPGC
  - Critical work level transition training needs
- b. Preparation and approval of training calendar and budget: the Organisation training calendar has mandatory training programs which are conducted across OPGC. The overall training budget is prepared by the Training Function in consultation with the Team and Business Leaders.
- c. Design and Delivery: based on the approved

training calendar, the Training Function coordinates (internal and external) training design and delivery with vendors / instructors to ensure appropriate customisation of the training material.

- d. Assessment of training effectiveness: feedback on the effectiveness of the training programme is collected at various levels and time durations. Training function measures training effectiveness as per the Kirk Patrick Model, up to Level 3 for all programs.

### Need and Importance of Training:

The need for training of employees arises due to the following factors:

#### (i) Higher Productivity:

It is essential to increase productivity and reduce cost of production for meeting competition in the market. Effective training can help increase productivity of workers by imparting the required skills.

#### (ii) Quality Improvement:

The customers have become quality conscious and their requirements keep on changing. To satisfy the customers, quality in service must be continuously improved through training of workers.

#### (iii) Reduction of Learning Time:

Systematic training through trained instructors is essential to reduce the training period. If the workers learn through trial and error, they will take a longer time and may not be able to learn right methods of doing work.

#### (iv) Industrial Safety:

Trained workers can handle the machines safely. They also know the use of various safety devices in the plant. Thus, they are less prone to industrial accidents.

### Dissemination of Knowledge

Employees who have attended training programmes normally share their learning with other employees in fora like Quality Circles, departmental meetings, etc. Data on training of OPGC's employees and contractors' employees are presented below.



Names of a few training programmes out of many conducted are:

1. Heat Stress Management; 2. Waste Segregation and Management; 3. Environment Monitoring Measurement; 4. Emergency Response Plan; and 5. Contract Management & Bid Evaluation

**Average Hours of Training per Year per Employee, by Gender, and by Employee Category**

**2014-15**

	Executive		Training Hours (No. of training Days x total hours per day)		Non-Executive		Training Hours (No. of training Days x total hours per day)	
	Male	Female	Male	Female	Male	Female	Male	Female
In-House	142	10	3168	400	118	6	1888	120
External	40	5	860	120	14	0	560	0
In Company	127	6	2940	192	92	7	1104	168
<b>Total</b>	<b>309</b>	<b>21</b>	<b>6968</b>	<b>712</b>	<b>224</b>	<b>13</b>	<b>3552</b>	<b>288</b>

**2015-16**

	Executive		Training Hours (No. of training Days x total hours per day)		Non-Executive		Training Hours (No. of training Days x total hours per day)	
	Male	Female	Male	Female	Male	Female	Male	Female
In-House	135	10	3205	480	97	2	1792	120
External	20	7	780	420	5	0	30	0
In Company	136	10	3148	60	89	4	1825	24
<b>Total</b>	<b>291</b>	<b>27</b>	<b>7133</b>	<b>960</b>	<b>191</b>	<b>6</b>	<b>3647</b>	<b>144</b>

**Average Hours of Training per Year per Employee, by Gender, and by Contractor Employee Category**

**2014-15**

	Executive		Training Hours (No. of training Days x total hours per day)		Non-Executive		Training Hours (No. of training Days x total hours per day)	
	Male	Female	Male	Female	Male	Female	Male	Female
In-House	0	0	0	0	0	0	0	0
External	0	0	0	0	0	0	0	0
In Company	0	0	0	0	236	80	7552	1280
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>436</b>	<b>80</b>	<b>7552</b>	<b>1280</b>

**2015-16**

	Executive		Training Hours (No. of training Days x total hours per day)		Non-Executive		Training Hours (No. of training Days x total hours per day)	
	Male	Female	Male	Female	Male	Female	Male	Female
In-House	0	0	0	0	0	0	0	0
External	0	0	0	0	0	0	0	0
In Company	0	0	0	0	253	77	10120	1232
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>253</b>	<b>77</b>	<b>10120</b>	<b>1232</b>

# Contract Manpower Management System Unique Features

- ❑ Based on online Entry / Exit recording system.
- ❑ Contractor details - WO, duration, location, job nature & manpower details are imported into the system.
- ❑ Web based integration with EHS, HR/Administration & Security.
- ❑ Photography and Biometric Registration (Finger print of two fingers) during initial enrollment.
- ❑ Generation of Unique ID against each and every individual, which remain unchanged.
- ❑ Unique ID with photo and other details printed on a sticker and attached to Mi fare Smart card.
- ❑ Data export to designated Access Doors (Turnstile/Tripod/Swing/Boom barriers).
- ❑ To allow access, cards are scanned at gate in IP based Smart Card Readers integrated with Access Doors.
- ❑ Can be integrated with Biometric readers, if required
- ❑ On expiry of validity of vendor (WO, LL, Insurance, etc.) card access is denied at gate.
- ❑ For renewal, card validity is extended to the desired date without collecting / issuing a new card.
- ❑ If required, entry of a card holder can be restricted through the system itself.
- ❑ For any security or safety breach a card holder can be blacklisted temporarily or permanently.
- ❑ Once blacklisted, system will not allow regeneration of card unless de-blacklisted specifying reason.
- ❑ System is compatible to SAP.
- ❑ Instant MIS generation – date, time, location and contractor wise.
- ❑ Low cost and in-house card preparation facility for company employees and contractor manpower.

## Special Features:

- ❑ Auto generated MIS through mail to the concerned officer informing daily workforce attendance.
- ❑ Auto alert to user department prior to expiry of EP validity of a contractor agency.

## Security Automation

Started at ITPS from December 2014, its main features are:

### 1. Access Control

- a) Contract Manpower Management
- b) Visitor Management
- c) Automated Gate Access Management

### 2. Electronic Surveillance System

- ❑ 26 Cameras with CCTV monitoring facility at Security Control located at entry exit points and other strategic locations of plant and Corporate Office for surveillance.



- ❑ A skills development training program by Security Sector Skills Development Council under Star Scheme of National Skills Development Corporation (NSDC), Govt. of India, was organised by M/s Ranchi Security in the month of May 2014. 80 security personnel successfully completed the training and were issued with certificate as Unarmed Security Guard.
- ❑ Ten days' training on Basic Computer & MS Office was conducted by NICE, Belpahar, for security personnel from 23rd November to 3rd December, 2014 at Skills Development Centre of OPGC.

## Occupational Health & Safety

### Creating a safer working environment

Safety comes first at OPGC. It is our first and foremost value and comes before everything else we do because we care for the health and well-being of all our employees. Our goal is to make that possible for each OPGC person and contractor by creating and sustaining an incident-free workplace. Though we're not there yet, we know it can be a reality for OPGC if we continue to take proactive measures to keep people safe.

We have been continuing our pro-active safety management procedures, nurturing a culture focused on safety. Our safety strategy is centred on the belief that all occupational injuries can be prevented and zero harm is achievable. Our approach to safety is defined in the OPGC EHS Policy, Values & Beliefs. Our four safety beliefs are four pillars of our safety management system.

### We strive to live our safety beliefs

1. *Safety comes first for our people, our contractors and the individuals in our communities, and all our work activities need to be conducted in a safe manner that promotes personal health, safety and well-being.*
2. *All occupational incidents can be prevented.*
3. *Working safely is a condition of employment and each person is responsible for their own safety as well as the safety of their teammates and the people in the communities in which we work.*
4. *All OPGC employees and contractors have the right and obligation to stop work as soon as they identify a situation they believe to be unsafe.*

The basis of our 'Zero Harm' approach is that we do not accept that harm should come to any of our employees, contractors and other people. Creating a safe and healthy workplace is one of the most

important drivers of our business. Nothing is so urgent or so important that justifies neglecting safety principles.

Our aim is to challenge employee behaviour and change mind-sets. As we say, safety is a journey which does not end. We continually seek ways to enhance our operations in the areas of health, safety and the environment.

"Put safety First" is our first value, Safety is our way of life and "Always on for Safety" is our habit.

Our intelligent EHS management system in line with OHSAS 18001 & global safety standards helps us reliably achieve what we really believe in: We are on fifth year of LTI free journey in our operation.

We achieved 12.7 million LTI free man hours and 1386 LTI free man days during the reporting period. The company has bagged a number of State as well as National Level EHS Awards.

- 70th National Fire Service Week was observed from 14th to 19th April, 2014 through various awareness programme among the employee, contractor workforce, housewives & periphery areas. On the spot quiz programme for the employees & contractor agency staff was organised on the first day of observance. Ladder Drill, live rescue drill, live demonstration on oil fire & general fire extinguishing was carried out at plant. Awareness program for ladies of ITPS on "Domestic Safety & Safe handling of LPG" was conducted. Housekeeping of basic fire fighting equipments at TG Hall was carried out.
- Unit#1 TG Fire Protection system was made available in 'Auto' through combined effort from Fire, C&I & Mechanical Departments.
- Safety Audit by National Safety Council was successfully completed from 28th till 20th April, 2014.



## BEST PRACTICES

Fourteen Safety Improvement Task Forces started functioning from February 2015 to strengthen safety management.

In order to enhance safety belief and encourage participation of employees towards Safety, CHP team of ITPS has taken an initiative of taking SAFETY PLEDGE before going to work. This activity has improved the ownership of all CHP employees towards safety.

### Proactive Stand Down Meeting

A discussion on crossing the train lines while coal wagons are in Track Hopper was held on 18th February, 2014. Contractor employees were appraised on a fatal accident occurred in another plant while crossing train lines and were advised on the safety procedures to follow to avoid unsafe behaviour.

The objective of OPGC is to provide safe, clean, reliable power to the community and we give the utmost priority to safety of our own employees, contract labourers, visitors, suppliers, vendors etc. It's strategy for preventing accidents starts from entering into the plant premises. It is mandatory for all employees to enter inside plant with safety helmets, safety shoes and safety glasses. Visitors, suppliers and outsiders are provided with safety shoes, helmets, glasses and a booklet containing emergency preparedness measures (if any accident occurs during his/her stay inside plant) before entering into the plant. In case of any accident or dangerous occurrence, an internal inquiry committee is set up for investigating the causes and corrective measures are taken as per recommendation of assigned committee.

All the incidents of accidents, dangerous occurrences and near-miss cases are intimated to Inspectorate of Factories & Boilers without concealing anything. The same are recorded for analysis and intimated to statutory authorities. Safety and first aid training are imparted to all employees by expert faculties drawn from external agencies regularly. National Safety Day, Fire Day, Electrical Safety week, Chemical Disaster Day, etc. are observed sincerely to keep the awareness of safety among the people alive.

□ OPGC has developed **Standard Operating Guidelines and Standard Maintenance Practices** for each equipment and also safe operating procedures for the process related jobs. We have a fully developed medical center with specialists and medical equipment. First aid boxes have been provided to each Department and almost all the employees have been imparted with First Aid Training.

- On-site Emergency Planning is in place for emergency preparedness. As the plant is handling chlorine, hydrogen and light diesel oil for process requirement, the company has developed its own evacuation planning, warning/alarm system and fully trained combat and rescue team.
- Regular mock drill is conducted for chlorine safety and fire safety where people undergo hands-on practical training so that they can operate safety appliances correctly at the time of an accident or hazard.
- The company has also extended many of its awareness campaign to near by communities. It conducts meetings and discussions in nearby villages for creating awareness on electrical safety and emergency preparedness for chlorine leakage.
- It has developed a safety manual containing permit to work system for confined space, hot work and other maintenance Jobs. The isolation procedures and release of permit are checked thoroughly to avoid any type of accidents.
- Safety Audits are undertaken every alternate year by different national agencies as well as by AES Audit Team.
- Driven by its commitment for Safe Power, OPGC has developed a well-defined Integrated EHS Policy in this regard.

Percentage of Total Workforce Represented in Formal Joint Management Worker Health and Safety Committees that Help Monitor and Advise on Occupational Health and Safety Programs

Workforce	2014-15			2015-16	
	In committees (No.)	% represented	At which level this committee operates	In committees (No.)	% represented
Management	14	42	Director Operations, Manager Factory, Safety Officers & Executives	13	48
Non - Management	19	58	Representative from employees and contractors	14	52
<b>Total</b>	<b>33</b>	<b>100</b>		<b>27</b>	<b>100</b>

Type of Injury and Rates of Injury, Occupational Diseases, Lost Days, and Absenteeism, and Total Number of Work-related Fatalities

Year	OSHA Injury Rate			Frequency Rate		
	Total Man hours Worked	IR-(Reportable + Fatal)	IR-Total (Reportable + Fatal + Non Reportable + recordable)	Total Man days worked	Reportable + Fatal	Total (Reportable + Fatal + Non Reportable + Recordable)
2012-13	886504		0.225605299	110762		.128026495
2013-14	930200		0.860030101	116755		4.300150505
2014-15	973032		0.822172344	121629		1.02771543
2015-16	920936		0.217170357	115117		1.085851786

**Pursuing Zero Accidents: A Case Study**

Safety is our first value because our workforce is our most valuable asset. This statement serves as the driving force behind our constant efforts to improve safety at our site. We are committed at all levels of our operation to protect the health and lives of the people involved with our business.

Every day is an opportunity to improve safety. Our level of expectation regarding safety is reiterated through the actions of our line management and leadership teams, our policies and procedures. One of our four safety beliefs rightly describes “working safely is a condition of employment”.

We believe that all accidents are preventable, and that an accident free workplace is obtainable. We strive for continual improvement in our safety performance and communicate our progress with both internal and external stakeholders.

Embedding safety into daily behaviors and conversations is essential to maintaining safety as a top priority. Our employees and contractors embrace and share the same ideas of preventing incidents, injuries or harm. This engaged approach encourages our people regardless of their position in the organization to believe in applying ‘stop work’ protocol as soon as they observe an unsafe work practice.

OPGC's corporate safety culture development approach and standardization stresses the priority we place on safety in the workplace and encourage to establish a world class safety culture.

We remain steadfastly committed to ensuring the safety of our employees and contractors, and this is evident in our practices and achievements.

	2014-15	2015-16
Fatality	0	0
Lost Time Injury Rate	0	0
Recordable Injury Rate	0	0

### Safety Best Practices

- + **LOTO process improvement initiative:** Developed & implemented online Permit/LOTO & JSA process in SAP module.
- + **Safety Balance Score Card:** Specific and measurable key safety functional areas e.g. safety walks, observations, safety meeting participation and LTI prevention for employees and contractors
- + **Safety Belief enhancement:** Strengthening Safety Beliefs through repeated sensitization. Spreading Stop Work Authority to all.
- + **Employee Satisfaction:** Put higher importance to Hygiene and Housekeeping. Made leadership group's direct participation in housekeeping.
- + **Increased Safety Awareness:** Raised safety awareness through weekly tool box talks, online safety quiz competitions, safety walk feedback process, structured job specific training and Pre Job Safety Briefing for every job.
- + **Strengthened appreciation and accountability process:** This is done through improved site safety reward programme, monthly safety reward in Safety Committee and celebrating achievements and milestones.
- + **Effective LOTO & JSA monitoring:** Frequent LOTO/PTW, JSA field audits along with LOTO (Isolation) verification mock audits.
- + **Off the job safety:** Conducting off the job safety programs in plant, colony, community and schools.



# Supply Chain

*The Wheels on which our Business Runs*

## Elements and Activities of Supply Chain

OPGC's internal supply chain department consists of purchase, contracts & warehouse. Purchase department arranges the spares, plant parts & equipment, whereas contracts department provides the services for carrying out the maintenance by contractors. The warehouse stores the spares & provides the stock spares required for conducting various maintenance activities. The purchase order/work orders are finalized as per the organization standard procedure defined in SCM manual. The various activities of purchase & contracts are defined as per approved flow chart. There is clearly defined Delegation of Power (DOP) for recommendation of a proposal & also an award of purchase order or work order.

About 2038 suppliers are engaged with the organization for providing various supplies, 1783 contractors provide the maintenance services to organization and these numbers are updated yearly based on introduction of new vendors through defined new vendor registration procedures.

Most of the suppliers and contractors are within India and few spares are arranged from foreign suppliers. The suppliers are either Original Equipments Manufacturers (OEM) or their authorized dealers. Whereas Contractors are the agencies which are experts in providing the area specific activities, the consultants are hired for providing the expert services in maintenance, implementation of various standards, etc.

For the FY 2014-2015 about Rs. 53.76 Crore was made as payments to suppliers out of which local suppliers percentage is 9.85% & for FY 2015-2016 about Rs. 21.28 Crore was made to suppliers out of which local suppliers percentage was 13.91%.

Suppliers who are manufacturers are manufacturing the various products/spares required for the organization as per their capabilities in terms of manpower & machineries. Since there is sufficient machinery involved, the suppliers are less labour intensive. On other hand the contractors are labour intensive. They provide the maintenance services completely through their labours employed. We strive to ensure that the contractors' are meeting all the statutory compliance. Further while performing

job on site, all the safety precautions & training are imparted to them. All the safety standards of the organization are strictly ensured and any violation on this aspect is not permitted.

## Introduction of new Suppliers/Contractors:

SCM department prepares the list of approved vendors and contractors and any new vendors that are introduced and are registered only after complete technical and commercial scrutiny, checking their adequate installed machinery with proper capacity, laboratory facilities, manpower, financial stability, safety and quality standard maintained and taking performance feedback from reputed clients as per defined guidelines for new vendor registration.

## Suppliers/ Contractors Performance Evaluation:

Suppliers and Contractors performance are evaluated periodically based on a defined set of parameters. Their rating is updated based on the improvement or deterioration in quality of supplies/work, following safety guidelines, meeting technical and commercial requirements, meeting statutory requirements, financial stability, service level, etc.



Our focus is to optimise internal cross-functional integration in order to progressively adapt to environmental friendly and socially responsible management of supply chain standards keeping in view dynamics of our business domain.

**B.K. Mishra**

DGM-Supply Chain Management



OPGC understands the importance of sustainability being driven across the value chain . With that in mind , we have undertaken a comprehensive effort towards coming up with a long term agenda for engaging with our upstream supply chain . As part of that plan , we are going to undertake an engagement exercise with our top five suppliers in terms of order values, in the next financial year. This number will be incrementally increased year on year. This will enable us to effectively set up a supplier assessment plan for the future as well .

OPGC extends its reach to the boundaries beyond its operation to its suppliers and contractors when it comes to human rights. Suppliers and Contractors are scrutinised with respect to parameters like forced/compulsory labour, child labour, equal wages, etc. before selecting them and visits are conducted afterwards to ensure the same. No case of child/ forced/compulsory labour has come to our notice during reporting period.

#### Organization Definition for Local Supplier/ Contractor:

"Organization or person that provides a product or service to our organization and that it is based in the same geographical market i.e. within 200 Kms radius from IB Thermal Power Station. The reporting organization is termed as local supplier or Contractor"

S. No.	Operation	Budget Spent for FY 2014-15 (% of total spent)	Budget Spent for FY 2015-16 (% of total spent)
<b>1</b>	<b>Procurement of various items categories locally</b>		
i	Procurement of spares/consumables from local suppliers	9.85%	13.91%
ii	Procurement of stationeries from local suppliers		
iii	Procurement of structural steel from local suppliers		
iv	Procurement of uniforms/shoes/furniture's etc		
	Total No of orders/ No of Orders Placed to Local service provider's	750/249	480/122
<b>2</b>	<b>Various maintenance activities outsources locally</b>		
i	Plant Maintenance work outsource locally	30.02%	24.05%
ii	Civil/Infrastructure work outsource locally		
iii	Housekeeping/catering work outsource locally		
iv	Other activities of organization outsource locally (like IT services, consultancy services etc)		
	<b>Total No of orders/ No of Orders Placed to Local service providers</b>	<b>345/142</b>	<b>338/141</b>

#### OPGC Project Utkarsh Implemented Successfully; SAP ERP Goes Live on 1st February, 2016

Implementation of Project UTKARSH marks a new beginning for OPGC which facilitates much desired cross functional integration of processes for improving several elements of our business to harness efficiency. It is expected that with the help of this system people at all levels can take better and informed business decisions which is essential for business agility.

### Highlights of OPGC's Sourcing Policy

OPGC is committed to conduct all sourcing activities according to its Vision, Mission and Values in order to ensure materials & services of required quality at desired time in right quantity from right sources and at the lowest total cost of ownership during project life-cycle while maintaining transparency and high standards of ethics in each transaction.

#### The objectives envisaged are to:

- ✓ MAINTAIN at all times, and under all conditions, a continuous supply of goods and services necessary to support production (generation of electricity) and other related activities.
- ✓ ADHERENCE of all suppliers and contractors to Environment, Health and Safety Policy of OPGC including full acceptance and compliance of the Integrity Pact with TII.
- ✓ IMPROVE long term, mutually profitable and ethical relationships with suppliers and contractors.
- ✓ DEVELOP reliable alternate sources to ensure fair competition amongst suppliers and contractors in a highly competitive environment.
- ✓ ENCOURAGE local communities, suppliers, contractors and agencies for socially responsible procurement of supplies and services for sustainable development of all stakeholders.
- ✓ TREAT all prices and technical information submitted by vendors confidential.
- ✓ RESOLVE complaints properly on all purchased goods and services as promptly as possible.
- ✓ PROVIDE leadership in standardization of materials, supplies, equipment, services, implementation of leading edge policies, procedures, and related tools.
- ✓ DISPOSE all the materials and equipment declared as surplus or obsolete diligently at the best cost, while implementing measures to prevent or minimise the generation of the same.
- ✓ ADOPT latest technologies such as E-procurement, reverse auction, etc. for efficiency enhancement.



# Corporate Social Responsibility

## A Vehicle for Impactful Relationships

OPGC has always set a high standard in adopting sustainable practices in its business. OPGC has developed several guiding principles for effective community engagement enshrined in the Corporate Social Responsibility (CSR) Policy that addresses the Company's actions under the broad concept- care for the community.

One of the pillars of OPGC's sustainable business practice is its constant endeavour towards contributing to all-round development of its immediate neighbouring villages which span six Gram Panchayats of Lakhanpur Block of Jharsuguda District. Through all our development interventions taken together we touch the lives of about fifty thousand people annually in one way or the other.

OPGC's main CSR focus areas during the reporting period have been: preventive health, provision of safe drinking water, sanitation, livelihoods enhancement, quality education for children, imparting skills to youth/ women/ girls for improving employability, developing critical community infrastructure for upgrading quality of rural life and sports training for rural youth/ boys and girls.

OPGC firmly believes that creating sustainable social impact is a prime objective of its CSR Strategy. Towards this end, the Company has put in place an effective social impact focus to progressively



“There is more clarity now than ever before that business as usual is not an option. It is of

great urgency and importance that we minimise impacts of our actions today for those who come after us.”



**Dr. Manoj K. Dash**  
Head-CSR & Sustainability

measure the overall value created through implementation of its CSR Strategy. Such an approach has been adopted keeping in view that the relevant social issues in its neighbourhood are addressed with unique, robust and lasting solutions.

### Corporate Social Responsibility at OPGC: Key Driver of Inclusive Development

OPGC, as a responsible Corporate Citizen, is continuously working for the development of peripheral villages and contributing for developmental activities since its inception. The Company follows a participatory approach and involves all stakeholders in planning and execution of development projects in accordance with its inclusive CSR Policy that aims at driving the Company towards sustainable development.

OPGC adheres to its CSR guidelines and norms set by adopting the principles laid down in the Companies Act 2013, the Companies CSR Rules, 2014 and OPGC's philosophy of achieving sustainability through comprehensive stakeholder engagement. Based on the broad guidelines, OPGC has adopted a comprehensive CSR Policy. The CSR Policy sets the direction for OPGC towards

planning, designing and executing Corporate Social Responsibility programmes in its operational areas. OPGC's CSR interventions are touching lives of about 50,000 people across six Gram Panchayats near OPGC's plant site at Banharpali in Jharsuguda district.

**Highlights of changes in CSR Governance during 2014-15:**

- ❑ CSR strategy and approach with a view to ensure that all its interventions are aligned with the activities specified in Schedule VII of the Companies Act, 2013.

- ❑ A CSR Committee has been constituted by the OPGC Board of Directors comprising of three members: 1) Managing Director; 2) Director (Finance); and 3) Non-executive Director.
- ❑ All CSR projects are first approved by the CSR Committee and subsequently by the Board of Directors.
- ❑ OPGC has a well-defined CSR Policy which is displayed on its website ([www.opgc.co.in](http://www.opgc.co.in))
- ❑ Identification of priority areas keeping in view the needs of the local stakeholder communities
- ❑ Collaboration with specialised agencies for focused thematic approaches and best outcomes.



**Children at a Special Learning Session**



**Managing Director Presenting Sports Material to School Children from Peripheral Villages**

**Safe Drinking Water & Sanitation Projects**

- OPGC has been providing safe and potable drinking water to 17 periphery villages from its own Water Treatment Plant (WTP) since 2006. The project covers Banharpali, Telenpali, Kisanpada, Rengali, Sardhapali, Kantatikra, Bhaludole, Sargipali, Temporipada and Samlaitikra, Phalsamunda, Baragad, Dhubadera, Binka, Sapali, Old Adhapada, Balamunda benefitting 1100 households directly. Since 2012, 'ITPS Periphery Drinking Water Supply Management Committee' comprising of members of the constituent villages does the supervision of pipeline system and assists in day-to-day maintenance works.
- Besides, since 2004, OPGC has been supplying potable drinking water to 30 other nearby villages through tanker in the summer season during the water-scarce period of April to July.
- Water & sanitation projects like public sanitation complexes and excavation of water bodies are also taken up for meeting water & sanitation needs of communities.





**A few Water & Sanitation Projects**

### EDUCATION

At OPGC, quality and access to education for all children carries utmost importance. Construction of school building, additional class rooms, hostel building, renovation and repairing of school, electrification work and construction of boundary walls, etc. have been undertaken under school infrastructure improvement.

Besides the above, office furniture, Teaching and Learning Material (TLM), library and science equipment, computers, etc. have also been provided to several schools to improve knowledge delivery mechanism and facilitate effective learning.

#### Learning Enhancement Programme (LEP)

- A project for promotion of quality education has been rolled out in partnership with 'Pratham'
- Coverage of 28 Primary, Upper Primary and Ashram Schools of periphery villages of ITPS
- The project addresses the needs of school children lacking reading, writing and arithmetic skills they should have for their age and grade
- Capacity Building of School Teachers in CAMaL (Combined Activities for Maximised Learning) methodology which propagates best teaching practices
- Baseline and mid-term assessment of students is carried out to measure improvement among students using appropriate tools.
- Teaching and Learning Material (TLM) have been provided to students and teachers on Language and Mathematics
- Village-level interactive sessions and door-to-door mobilizations are being conducted to track irregular children and discourage absenteeism



Testing of a student by her teachers



Children Enjoying Reading Books



Teachers' Training Programme



Use of trading cards for learning mathematics

### LIVELIHOODS AND SKILLS DEVELOPMENT

OPGC believes that its development initiatives can only bring desired changes when the community around is economically sustainable. OPGC aims at giving livelihood opportunities & relevant capacity building through skill development and vocational training.

- Project in partnership with ALC India rolled out for implementation in 22 villages of 6 Gram Panchayats
- Aim to promote 120 SHGs, 44 farmer and fishermen groups and 300 youth in the periphery villages for farm and off farm-based micro-enterprises, skill-based capacity building
- The 5-year project aims at 100% increase in income for 1700 HHs through various Income Generation Activities (IGA) such as Crop production, water resource development, horticulture, livestock and fisheries, poultry, mushroom farming, handicrafts, etc.
- Youth will be targeted for skill-based training, entrepreneurship and self-employment opportunities
- Establishment of Producer Company for facilitating big business
- 50 new SHGs, 10 Fishermen Groups and 10 Farmer Interest Groups formed
- Stitching, knitting and embroidery training is provided to adolescent girls & women at ITPS Skill Development and Vocational Training Centre

### E-SIKSHYA INITIATIVE FOR YOUTH & TEACHERS

- OPGC has introduced an 'Advanced DTP Programme' in partnership with 'Sahaj' which is a 6-month course to enhance the employability of 40 local youth by training them in Photoshop, CorelDraw and PageMaker. This course is designed to enhance capability of trainees to either go for employment in the market or set up their own business.
- Computer Training to School Teachers for promoting digital inclusion.



## ONGOING LIVELIHOODS ACTIVITIES



**Broom-making: An Age-old Vocation**



**Reservoir Fishery: Augmenting Livelihoods**



**Cabbage Cultivation by a Farmer**

### RURAL DEVELOPMENT THROUGH CRITICAL COMMUNITY INFRASTRUCTURE DEVELOPMENT

- All projects taken up in the villages are executed as per needs expressed by villagers.
- Due procedures are followed and works are executed by reputed contractors under supervision of in-house engineers.
- Projects which help augment quality of life are implemented.



**Sellers' Platform at Local Haat / Market**



**ATM Centre for Financial Inclusion**



**Constructed School Building in a Village**

### SPORTS TRAINING TO RURAL YOUTH AND STUDENTS

- Promoting talent in the field of sports is also one of the core objectives of OPGC's CSR Policy. In the past, OPGC has provided sports materials, uniform to local youth clubs and has organised local sports tournaments.
- Football and Volleyball Coaching Camps were organized with support from Football Association of Odisha (FAO) and Odisha Volleyball Association (OVA). 175 players have been trained under expert coaches.
- Cricket coaching camp was organised for youth from nearby villages.



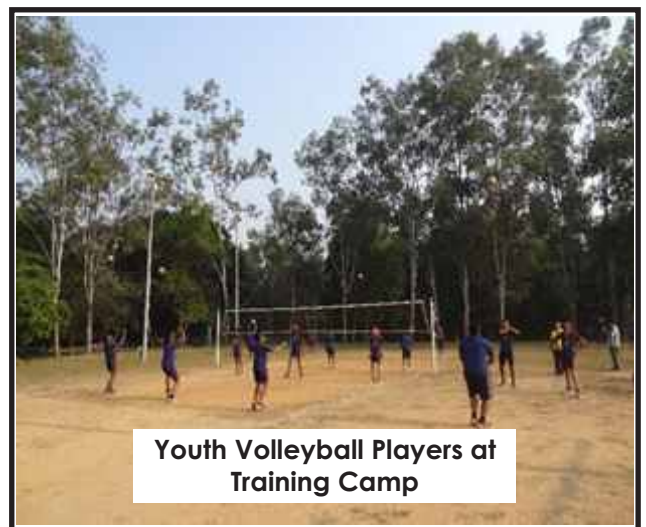
**Girl Footballers from a Local High School at Training Camp**



**Youth Footballers at Training Camp**



**A football training Session in progress**



**Youth Volleyball Players at Training Camp**



## ACTIVITIES ON PREVENTIVE HEALTH AND NUTRITION

- OPGC has a well-equipped 18-bedded secondary hospital at ITPS, Banharpali, inclusive of separate male, female and infectious wards.
- It offers various primary and secondary health facilities – preventive, curative and promotive – to people from periphery villages. More than 40,000 people benefit annually.
- Over the years, more than 80% of its OPD patients have been from the nearby communities.
- The CSR team has been conducting awareness programmes on nutrition and hygiene among school children and members of women's of self-help groups.
- Creating awareness on HIV/AIDS prevention and malnutrition among relevant stakeholders in its neighbourhood villages.



**Malnutrition Prevention Training Programme**



**Awareness on HIV/AIDS through Theatre**



**Patients with the Doctor for Health Check-up & Consultations**



**A Patient being Treated in the ITPS Hospital Ward**

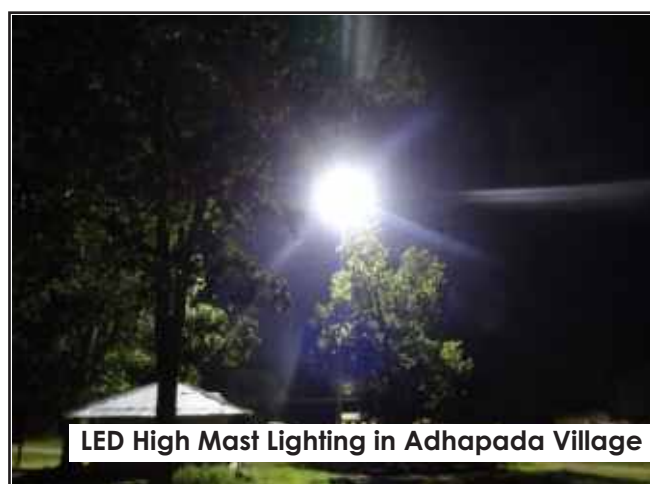
### Conservation of Energy through Installation of LED Lighting Systems in Villages near ITPS, Banharpali

OPGC is committed for all-round community development through participatory initiatives. While the entire capital cost of LED lighting projects has been borne from OPGC's CSR funds, there is an effort made by the District Administration of Jharsuguda to enable the beneficiary Gram Panchayats bear the recurring expenses.

In an attempt to contribute towards improving the quality of life of the community around OPGC's power plant at Banharpali, following LED lighting projects have been implemented.

- A new LED street lighting system has been installed covering a distance of 15 kilometers in four Gram Panchayats. This has dramatically changed quality of life of people. Many activities are now being continued under the street lights long after the Sun sets.
- LED High Mast lighting system was erected and commissioned at Adhapada Village.
- LED street light has been provided in Banharpali village to illuminate the internal village roads

These projects have made the community very happy as the locations have been carefully chosen to enrich the lives of people to the maximum. Street lighting along the road has made travel after dusk a lot safer. Installations of lighting systems at strategic locations have created new livelihoods opportunities for many who are now doing brisk business under the illuminating LED lights.



## GRI G4 Content Index for General Standard Disclosures General Standard Disclosures

General Standard Disclosures	Disclosure Item	Page No. of Disclosure	Fully Reported/ Not Reported/ Partially Reported
<b>STRATEGY AND ANALYSIS</b>			
G4-1	Provide a statement from the most senior decision-maker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability.	03	Fully Reported
G4-2	Provide a description of key impacts, risks, and opportunities.	11, 12, 13	Fully Reported
<b>ORGANIZATIONAL PROFILE</b>			
G4-3	Report the name of the organization.	Back Cover	Fully Reported
G4-4	Report the primary brands, products, and services.	11	Fully Reported
G4-5	Report the location of the organization's headquarters.	Back Cover	Fully Reported
G4-6	Report the number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report.	4, 11	Fully Reported
G4-7	Report the nature of ownership and legal form	11	Fully Reported
G4-8	Report the markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries).	11, 12	Fully Reported
G4-9	"Report the scale of the organization, including: <ul style="list-style-type: none"> <li>Total number of employees</li> <li>Total number of operations</li> <li>Net sales (for private sector organizations) or net revenues (for public sector organizations)</li> <li>Total capitalization broken down in terms of debt and equity (for private sector organizations)</li> <li>Quantity of products or services provided"</li> </ul>	44, 11, 26	Fully Reported
G4-10	"Report the scale of the organization, including: <ul style="list-style-type: none"> <li>Total number of employees</li> <li>Total number of operations</li> <li>Net sales (for private sector organizations) or net revenues (for public sector organizations)</li> <li>Total capitalization broken down in terms of debt and equity (for private sector organizations)</li> <li>Quantity of products or services provided"</li> </ul> <b>"Additional disclosure requirements</b> Report on total contractor workforce (contractor, subcontractor, independent contractor) by employment type, employment contract and regulatory regime."	40, 44	Fully Reported
G4-11	Report the percentage of total employees covered by collective bargaining agreements	38, 39	Fully Reported
	<b>"Additional disclosure requirements</b> Report on percentage of contractor employees (contractor, sub-contractor and independent contractor) working for the reporting organization covered by collective bargaining agreements by country or regulatory regime."		Not Reported
G4-12	Describe the organization's supply chain	52, 53	Fully Reported
G4-13	"Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain, including: <ul style="list-style-type: none"> <li>Changes in the location of, or changes in, operations, including facility openings, closings, and expansions</li> <li>Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations)</li> <li>Changes in the location of suppliers, the structure of the supply chain, or in relationships with suppliers, including selection and termination"</li> </ul>		Not Reported
G4-14	"COMMITMENTS TO EXTERNAL INITIATIVES Report whether and how the precautionary approach or principle is addressed by the organization."	15	Not Applicable
G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.		Fully Reported



G4-16	"List memberships of associations (such as industry associations) and national or international advocacy organizations in which the organization: <ul style="list-style-type: none"> <li>• Holds a position on the governance body</li> <li>• Participates in projects or committees</li> <li>• Provides substantive funding beyond routine membership dues</li> <li>• Views membership as strategic This refers primarily to memberships maintained at the organizational level."</li> </ul>		Not Applicable
	<b>EU1</b> INSTALLED CAPACITY, BROKEN DOWN BY PRIMARY ENERGY SOURCE AND BY REGULATORY REGIME	12	Fully Reported
	<b>EU2</b> NET ENERGY OUTPUT BROKEN DOWN BY PRIMARY ENERGY SOURCE AND BY REGULATORY REGIME	28	Fully Reported
	<b>EU3</b> NUMBER OF RESIDENTIAL, INDUSTRIAL, INSTITUTIONAL AND COMMERCIAL CUSTOMER ACCOUNTS		
	<b>EU4</b> LENGTH OF ABOVE AND UNDERGROUND TRANSMISSION AND DISTRIBUTION LINES BY REGULATORY REGIME		
	<b>EU5</b> ALLOCATION OF CO <sub>2</sub> e EMISSIONS ALLOWANCES OR EQUIVALENT, BROKEN DOWN BY CARBON TRADING FRAMEWORK		Not Reported
<b>IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES</b>			
G4-17	"a) List all entities included in the organization's consolidated financial statements or equivalent documents b) Report whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report. The organization can report on this Standard Disclosure by referencing the information in publicly available consolidated financial statements or equivalent documents."	05	Fully Reported
G4-18	a. Explain the process for defining the report content and the Aspect Boundaries. b. Explain how the organization has implemented the Reporting Principles for Defining Report Content.	18, 20	Fully Reported
G4-19	List all the material Aspects identified in the process for defining report content.	20	Fully Reported
G4-20	"For each material Aspect, report the Aspect Boundary within the organization, as follows: Report whether the Aspect is material within the organization If the Aspect is not material for all entities within the organization (as described in G4-17), select one of the following two approaches and report either: <ul style="list-style-type: none"> <li>• The list of entities or groups of entities included in G4-17 for which the Aspect is not material or</li> <li>• The list of entities or groups of entities included in G4-17 for which the Aspects is material Report any specific limitation regarding the Aspect Boundary within the organization"</li> </ul>	19, 20	Fully Reported
G4-21	"For each material Aspect, report the Aspect Boundary outside the organization, as follows: Report whether the Aspect is material outside of the organization If the Aspect is material outside of the organization, identify the entities, groups of entities or elements for which the Aspect is material. In addition, describe the geographical location where the Aspect is material for the entities identified Report any specific limitation regarding the Aspect Boundary outside the organization"		
G4-22	Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements.		Not Applicable
G4-23	Report significant changes from previous reporting periods in the Scope and Aspect Boundaries.		Not Applicable
<b>STAKEHOLDER ENGAGEMENT</b>	<b>These Standard Disclosures provide an overview of the organization's stakeholder engagement during the reporting period. These Standard Disclosures do not have to be limited to engagement that was conducted for the purposes of preparing the report.</b>		
G4-24	Provide a list of stakeholder groups engaged by the organization.	19	Fully Reported
G4-25	Report the basis for identification and selection of stakeholders with whom to engage.	18	Fully Reported
G4-26	Report the organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process	19	Fully Reported
G4-27	"Report key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns."	19	Fully Reported
<b>REPORT PROFILE</b>	<b>These Standard Disclosures provide an overview of the basic information about the report, the GRI Content Index, and the approach to seeking external assurance.</b>		
G4-28	Reporting period (such as fiscal or calendar year) for information provided.	05	Fully Reported
G4-29	Date of most recent previous report (if any)	05	Fully Reported
G4-30	Reporting cycle (such as annual, biennial)	05	Fully Reported
G4-31	Provide the contact point for questions regarding the report or its contents	05	Fully Reported

G4-32	"GRI CONTENT INDEX a) Report the 'in accordance' option the organization has chosen b) Report the GRI Content Index for the chosen option (see tables below) c) Report the reference to the External Assurance Report, if the report has been externally assured. GRI recommends the use of external assurance but it is not a requirement to be 'in accordance' with the Guidelines."	63	Fully Reported
G4-33	"a) Report the organization's policy and current practice with regard to seeking external assurance for the report. b) If not included in the assurance report accompanying the sustainability report, report the scope and basis of any external assurance provided. c) Report the relationship between the organization and the assurance providers. d) Report whether the highest governance body or senior executives are involved in seeking assurance for the organization's sustainability report."		Not Externally Assured
<b>GOVERNANCE</b>			
G4-34	Report the governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts.	14, 15	Fully Reported
G4-35	Report the process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees		Not Reported
G4-36	Report whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body.		Not Reported
G4-37	Report processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics. If consultation is delegated, describe to whom and any feedback processes to the highest governance body.		Not Reported
G4-38	"Report the composition of the highest governance body and its committees by: • Executive or non-executive • Independence • Tenure on the governance body • Number of each individual's other significant positions and commitments, and the nature of the commitments • Gender • Membership of under-represented social groups • Competences relating to economic, environmental and social impacts • Stakeholder representation"	17	Fully Reported
G4-39	Report whether the Chair of the highest governance body is also an executive officer (and, if so, his or her function within the organization's management and the reasons for this arrangement).	17	Fully Reported
G4-40	"Report the nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members, including: • Whether and how diversity is considered • Whether and how independence is considered • Whether and how expertise and experience relating to economic, environmental and social topics are considered • Whether and how stakeholders (including shareholders) are involved"		Not Reported
G4-41	"Report processes for the highest governance body to ensure conflicts of interest are avoided and managed. Report whether conflicts of interest are disclosed to stakeholders, including, as a minimum: • Cross-board membership • Cross-shareholding with suppliers and other stakeholders • Existence of controlling shareholder • Related party disclosures"		Not Reported
G4-42	"HIGHEST GOVERNANCE BODY'S ROLE IN SETTING PURPOSE, VALUES, AND STRATEGY The highest governance body sets the tone for the organization, and has a major role in defining its purpose, values and strategy.  Report the highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts.  HIGHEST GOVERNANCE BODY'S COMPETENCIES AND PERFORMANCE EVALUATION These Standard Disclosures describe the highest governance body's and senior executives' willingness and capability to understand, discuss, and effectively respond to economic, environmental and social impacts; and show if a process is in place, conducted internally or externally, to ensure the highest governance body's continuing effectiveness."		Not Reported

G4-43	Report the measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics.	Not Reported
G4-44	<p>"a. Report the processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics. Report whether such evaluation is independent or not, and its frequency. Report whether such evaluation is a self-assessment.b. Report actions taken in response to evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics, including, as a minimum, changes in membership and organizational practice.</p> <p>HIGHEST GOVERNANCE BODY'S ROLE IN RISK MANAGEMENT</p> <p>These Standard Disclosures describe whether the highest governance body is accountable for risk management process and its overall effectiveness. The highest governance body's and senior executives' consideration of longer term and broader-reaching risk elements and their integration into strategic planning are important governance disclosures."</p>	Not Reported
G4-45	<p>a. Report the highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities. Include the highest governance body's role in the implementation of due diligence processes.</p> <p>b. Report whether stakeholder consultation is used to support the highest governance body's identification and management of economic, environmental and social impacts, risks, and opportunities.</p>	Not Reported
G4-46	Report the highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics.	Not Reported
G4-47	<p>"Report the frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities.</p> <p>HIGHEST GOVERNANCE BODY'S ROLE IN SUSTAINABILITY REPORTING</p> <p>These Standard Disclosures show the extent of the highest governance body's involvement in developing and approving the organization's sustainability disclosures, and the degree by which it may be aligned with processes around financial reporting."</p>	Not Reported
G4-48	<p>"Report the highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material Aspects are covered.</p> <p>HIGHEST GOVERNANCE BODY'S ROLE IN EVALUATING ECONOMIC, ENVIRONMENTAL AND SOCIAL PERFORMANCE</p> <p>These Standard Disclosures show how the highest governance body is involved in monitoring and reacting to the organization's performance for economic, environmental and social topics. Economic, environmental and social performance presents major risks and opportunities that the highest governance body ensures are monitored and addressed, where appropriate. These Standard Disclosures also address the organization's processes for communicating critical concerns to the highest governance body."</p>	Not Reported
G4-49	Report the process for communicating critical concerns to the highest governance body.	Not Reported
G4-50	<p>"Report the nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s) used to address and resolve them</p> <p>REMUNERATION AND INCENTIVES</p> <p>These Standard Disclosures focus on the remuneration policies established to ensure that remuneration arrangements support the strategic aims of the organization, align with the interests of stakeholders, and enable the recruitment, motivation and retention of members of the highest governance body, senior executives, and employees."</p>	Not Reported
G4-51	<p>"a) Report the remuneration policies for the highest governance body and senior executives for the below types of remuneration:</p> <ul style="list-style-type: none"> <li>• Fixed pay and variable pay;</li> <li>• Performance-based pay</li> <li>• Equity-based pay</li> <li>• Bonuses</li> <li>• Deferred or vested shares</li> <li>• Sign-on bonuses or recruitment incentive payments</li> <li>• Termination payments</li> <li>• Clawback</li> <li>• Retirement benefits, including the difference between benefit schemes and contribution rates for the highest governance body, senior executives, and all other employees</li> </ul> <p>b) Report how performance criteria in the remuneration policy relate to the highest governance body's and senior executives' economic, environmental and social objectives."</p>	Not Reported



G4-52	Report the process for determining remuneration. Report whether remuneration consultants are involved in determining remuneration and whether they are independent of management. Report any other relationships which the remuneration consultants have with the organization.	Not Reported
G4-53	Report how stakeholders' views are sought and taken into account regarding remuneration, including the results of votes on remuneration policies and proposals, if applicable.	Not Reported
G4-54	Report the ratio of the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees (excluding the highest-paid individual) in the same country.	Not Reported
G4-55	Report the ratio of percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) in the same country.	Not Reported

#### ETHICS AND INTEGRITY

G4-56	Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.	16	Fully Reported
G4-57	Report the internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity, such as help-lines or advice lines.		Not Reported
G4-58	Report the internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escalation through line management, whistle blowing mechanisms or hotlines.		Not Reported

## SPECIFIC STANDARD DISCLOSURES CATEGORY: ECONOMIC

MATERIAL ASPECT	INDICATOR NO. AND DESCRIPTION	Page No. of Disclosure	Fully Reported/ Not Reported/ Partially Reported
Economic Performance	"G4-DMA a. Report why the Aspect is material. Report the impacts that make this Aspect material. b. Report how the organization manages the material Aspect or its impacts. c. Report the evaluation of the management approach, including: • The mechanisms for evaluating the effectiveness of the management approach • The results of the evaluation of the management approach • Any related adjustments to the management approach"	21	Fully Reported
	<b>EC1</b> DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED	22	Fully Reported
	<b>EC2</b> FINANCIAL IMPLICATIONS AND OTHER RISKS AND OPPORTUNITIES FOR THE ORGANIZATION'S ACTIVITIES DUE TO CLIMATE CHANGE	7, 8	Fully Reported
	<b>EC3</b> COVERAGE OF THE ORGANIZATION'S DEFINED BENEFIT PLAN OBLIGATIONS		Not Reported
	<b>EC4</b> FINANCIAL ASSISTANCE RECEIVED FROM GOVERNMENT		Not Reported
Market Presence	<b>G4- DMA</b> <b>EC5</b> RATIOS OF STANDARD ENTRY LEVEL WAGE BY GENDER COMPARED TO LOCAL MINIMUM WAGE AT SIGNIFICANT LOCATIONS OF OPERATION		Not Reported
	<b>EC6</b> PROPORTION OF SENIOR MANAGEMENT HIRED FROM THE LOCAL COMMUNITY AT SIGNIFICANT LOCATIONS OF OPERATION		Not Reported
Indirect Economic Impacts	<b>G4- DMA</b> <b>EC7</b> DEVELOPMENT AND IMPACT OF INFRASTRUCTURE INVESTMENTS AND SERVICES SUPPORTED	55, 62	Fully Reported
	<b>EC8</b> SIGNIFICANT INDIRECT ECONOMIC IMPACTS, INCLUDING THE EXTENT OF IMPACTS	55, 62	Fully Reported
Procurement Practices	<b>G4- DMA</b> <b>EC9</b> PROPORTION OF SPENDING ON LOCAL SUPPLIERS AT SIGNIFICANT LOCATIONS OF OPERATION	52	Fully Reported

Availability and Reliability	<b>EU10</b> PLANNED CAPACITY AGAINST PROJECTED ELECTRICITY DEMAND OVER THE LONG TERM, BROKEN DOWN BY ENERGY SOURCE AND REGULATORY REGIME	8, 13	Partially Reported
	<b>"G4- DMA- Additional Guidance</b> Management approach to ensure short and long-term electricity availability and reliability"	27	Fully Reported
Demand-Side Management	This sector specific Aspect does not contain Indicators.*		Not Applicable
	<b>"G4- DMA-Additional Guidance</b> Demand-side management programs including residential, commercial, institutional and industrial programs"		Not Applicable
Research and Development	This sector specific Aspect does not contain Indicators.*		Not Applicable
	<b>"G4-DMA Additional Guidance</b> Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development"		Not Applicable
Plant Decommissioning	This sector specific Aspect does not contain Indicators.*		Not Applicable
	<b>"G4-DMA Additional Guidance</b> Provisions for decommissioning of nuclear power sites"		Not Applicable
System Efficiency	<b>G4- DMA</b> <b>EU11</b> AVERAGE GENERATION EFFICIENCY OF THERMAL PLANTS BY ENERGY SOURCE AND BY REGULATORY REGIME	28	Fully Reported
	<b>EU12</b> TRANSMISSION AND DISTRIBUTION LOSSES AS A PERCENTAGE OF TOTAL ENERGY		Not Reported

## ENVIRONMENT

Materials	<b>G4- DMA</b> <b>EN1</b> MATERIALS USED BY WEIGHT OR VOLUME	28	Partially Reported
	<b>"Additional disclosure requirements</b> Report in-use inventory of solid and liquid high level and low level PCBs contained in equipment."		Not Reported
	<b>"G4- DMA Additional Guidance</b> Describe long-term strategy for managing and phasing out high level and low level in-service PCBs."		
	<b>EN2</b> PERCENTAGE OF MATERIALS USED THAT ARE RECYCLED INPUT MATERIALS	30, 31	Partially Reported
Energy	<b>G4- DMA</b> <b>EN3</b> ENERGY CONSUMPTION WITHIN THE ORGANIZATION	33	Fully Reported
	<b>EN4</b> ENERGY CONSUMPTION OUTSIDE OF THE ORGANIZATION		Not Reported
	<b>EN5</b> ENERGY INTENSITY	33	Fully Reported
	<b>EN6</b> REDUCTION OF ENERGY CONSUMPTION	33	Fully Reported
	<b>EN7</b> REDUCTIONS IN ENERGY REQUIREMENTS OF PRODUCTS AND SERVICES		Not Reported
Water	<b>G4- DMA</b> <b>EN8</b> TOTAL WATER WITHDRAWAL BY SOURCE	33	Fully Reported
	<b>"Additional disclosure requirements</b> Report overall water usage for processing, cooling and consumption in thermal and nuclear power plants, including use of water in ash handling and coal cleaning."		Not Reported
	<b>"G4- DMA Additional Guidance</b> At the watershed or hydrological basin level, include collaborative approaches to managing watersheds and reservoirs for multiple uses (e.g., irrigation, drinking water, ecosystem conservation, etc.). Also report long-term planning for securing water resources, for meeting the needs of both the utility and other stakeholders (e.g. local communities). This includes describing the criteria for managing maximum/minimum flow of surface water and volume of ground water and how these are determined and maintained."		Not Reported
	<b>EN9</b> WATER SOURCES SIGNIFICANTLY AFFECTED BY WITHDRAWAL OF WATER		Not Reported
	<b>EN10</b> PERCENTAGE AND TOTAL VOLUME OF WATER RECYCLED AND REUSED	33	Fully Reported
Biodiversity	<b>G4- DMA</b> <b>EN11</b> OPERATIONAL SITES OWNED, LEASED, MANAGED IN, OR ADJACENT TO, PROTECTED AREAS AND AREAS OF HIGH BIODIVERSITY VALUE OUTSIDE PROTECTED AREAS.	32, 37	Partially Reported

	<b>EN12</b> DESCRIPTION OF SIGNIFICANT IMPACTS OF ACTIVITIES, PRODUCTS, AND SERVICES ON BIODIVERSITY IN PROTECTED AREAS AND AREAS OF HIGH BIODIVERSITY VALUE OUTSIDE PROTECTED AREAS	32, 37	Partially Reported
	<b>"Additional disclosure requirements</b> Report the nature of significant direct and indirect impacts on biodiversity with reference to one or more of the following: a. Maintenance of transmission line corridors b. Fragmentation and isolation (islandization) c. Impacts of thermal discharge"		Not Reported
	<b>"G4-DMA Additional Guidance</b> Report approaches for pest and vegetation management along transmission and distribution corridors (e.g., use of Integrated Pest Management and Integrated Vegetation Management). Report the approaches to assess impacts (including fragmentation and isolation), develop mitigation measures and monitor residual effects at new and existing sites on the following: • Forested areas (e.g., alterations to tree crown density, loss of indigenous species); • Landscape (e.g., impacts of wind farms, transmission lines); and • Marine, freshwater and wetland ecosystems (e.g., downstream water quality including turbidity, sedimentation, siltation and water quality of reservoir and other water bodies). Assessment and mitigation should consider conservation plans for indigenous species, alterations in the migration, breeding, or habitat of animals (e.g., fish passage) from the reporting organization's infrastructure (e.g., power lines and dams)."		
	<b>EN13</b> HABITATS PROTECTED OR RESTORED		Not Reported
	<b>EN14</b> TOTAL NUMBER OF IUCN RED LIST SPECIES AND NATIONAL CONSERVATION LIST SPECIES WITH HABITATS IN AREAS AFFECTED BY OPERATIONS, BY LEVEL OF EXTINCTION RISK		Not Reported
	<b>EU13</b> BIODIVERSITY OF OFFSET HABITATS COMPARED TO THE BIODIVERSITY OF THE AFFECTED AREAS		Not Reported
Emissions	<b>G4- DMA</b>		
	<b>EN15</b> DIRECT GREENHOUSE GAS (GHG) EMISSIONS (SCOPE 1)	34	Fully Reported
	<b>"Additional disclosure requirements</b> Report CO <sub>2</sub> e per MWh, broken down by regulatory regime, for: Net generation from all generating capacity; Net generation from all fossil fuel generation; and Estimated net delivery to end users. This includes emissions from own generation."	34	Fully Reported
	<b>EN16</b> ENERGY INDIRECT GREENHOUSE GAS (GHG) EMISSIONS (SCOPE 2)		Not Reported
	<b>"Additional disclosure requirements</b> Report CO <sub>2</sub> e per MWh, broken down by regulatory regime, for: Estimated net delivery to end users. This includes emissions from purchased power."		
	<b>EN17</b> OTHER INDIRECT GREENHOUSE GAS (GHG) EMISSIONS (SCOPE 3)		Not Reported
	<b>EN18</b> GREENHOUSE GAS (GHG) EMISSIONS INTENSITY	34	Fully Reported
	<b>EN19</b> REDUCTION OF GREENHOUSE GAS (GHG) EMISSIONS	10, 33	Fully Reported
	<b>EN20</b> EMISSIONS OF OZONE-DEPLETING SUBSTANCES (ODS)	34	Fully Reported
	<b>EN21</b> NO <sub>x</sub> , SO <sub>x</sub> , AND OTHER SIGNIFICANT AIR EMISSIONS	34	Fully Reported
	<b>"Additional disclosure requirements</b> Report emissions per MWh for: Net generation from all generating capacity; Net generation from all combustion power plants;"		
	<b>"Additional disclosure requirements</b> Report emissions per MWh for: Net generation from all generating capacity; Net generation from all combustion power plants;"		
Effluents and Waste	<b>G4- DMA</b>		
	<b>EN22</b> TOTAL WATER DISCHARGE BY QUALITY AND DESTINATION	35	Fully Reported
	<b>"Additional disclosure requirements</b> Include thermal discharges as part of the total volume of planned and unplanned water discharges."		
	<b>"G4-DMA Additional Guidance</b> Describe the management strategy and storage methods for different types of radioactive nuclear waste, including: • Temporary and permanent storage; • Environmental, health and safety impacts of radioactive nuclear waste; and • Security measures according to the applicable management standards/legislative framework."		



	<b>EN23</b> TOTAL WEIGHT OF WASTE BY TYPE AND DISPOSAL METHOD	36	Fully Reported
	<b>"Additional disclosure requirements</b> Include PCB waste as part of the total weight of hazardous and non-hazardous waste."		
	<b>EN24</b> TOTAL NUMBER AND VOLUME OF SIGNIFICANT SPILLS	36	Fully Reported
	<b>EN25</b> WEIGHT OF TRANSPORTED, IMPORTED, EXPORTED, OR TREATED WASTE DEEMED HAZARDOUS UNDER THE TERMS OF THE BASEL CONVENTION <sup>2</sup> ANNEX I, II, III, AND VIII, AND PERCENTAGE OF TRANSPORTED WASTE SHIPPED INTERNATIONALLY		Not Applicable
	<b>EN26</b> IDENTITY, SIZE, PROTECTED STATUS, AND BIODIVERSITY VALUE OF WATER BODIES AND RELATED HABITATS SIGNIFICANTLY AFFECTED BY THE ORGANIZATION'S DISCHARGES OF WATER AND RUNOFF		Not Reported
Products and Services	<b>G4- DMA</b>		
	<b>EN27</b> EXTENT OF IMPACT MITIGATION OF ENVIRONMENTAL IMPACTS OF PRODUCTS AND SERVICES		Not Reported
	<b>EN28</b> PERCENTAGE OF PRODUCTS SOLD AND THEIR PACKAGING MATERIALS THAT ARE RECLAIMED BY CATEGORY		Not Reported
Compliance	<b>G4- DMA</b>		
	<b>EN29</b> MONETARY VALUE OF SIGNIFICANT FINES AND TOTAL NUMBER OF NON-MONETARY SANCTIONS FOR NON-COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS		Not Reported
Transport	<b>G4- DMA</b>		
	<b>EN30</b> SIGNIFICANT ENVIRONMENTAL IMPACTS OF TRANSPORTING PRODUCTS AND OTHER GOODS AND MATERIALS FOR THE ORGANIZATION'S OPERATIONS, AND TRANSPORTING MEMBERS OF THE WORKFORCE		Not Reported
Overall	<b>G4- DMA</b>		
	<b>EN31</b> TOTAL ENVIRONMENTAL PROTECTION EXPENDITURES AND INVESTMENTS BY TYPE	36	Fully Reported
Supplier Environmental Assessment	<b>G4- DMA</b>		
	<b>EN32</b> PERCENTAGE OF NEW SUPPLIERS THAT WERE SCREENED USING ENVIRONMENTAL CRITERIA	53	Partially Reported
	<b>EN33</b> SIGNIFICANT ACTUAL AND POTENTIAL NEGATIVE ENVIRONMENTAL IMPACTS IN THE SUPPLY CHAIN AND ACTIONS TAKEN		Not Reported
Environmental Grievance Mechanisms	<b>G4- DMA</b>		
	<b>EN34</b> NUMBER OF GRIEVANCES ABOUT ENVIRONMENTAL IMPACTS FILED, ADDRESSED, AND RESOLVED THROUGH FORMAL GRIEVANCE MECHANISMS	36	Fully Reported

## SOCIAL

### Sub- Category: Labor Practices and Decent Work

Employment	<b>G4- DMA</b>		
	<b>LA1</b> TOTAL NUMBER AND RATES OF NEW EMPLOYEE HIRES AND EMPLOYEE TURNOVER BY AGE GROUP, GENDER AND REGION	41, 42	Partially Reported
	<b>"Additional disclosure requirements</b> For the employees leaving employment during the reporting period, provide the average length of tenure of employees leaving broken down by gender and age group."		
	<b>"G4-DMA Additional Guidance</b> Programs and processes to ensure the availability of a skilled workforce Policies and requirements regarding health and safety of employees and employees of contractors and subcontractors "		
	<b>EU15</b> PERCENTAGE OF EMPLOYEES ELIGIBLE TO RETIRE IN THE NEXT 5 AND 10 YEARS BROKEN DOWN BY JOB CATEGORY AND BY REGION		Not Reported
	<b>EU17</b> DAYS WORKED BY CONTRACTOR AND SUBCONTRACTOR EMPLOYEES INVOLVED IN CONSTRUCTION, OPERATION & MAINTENANCE ACTIVITIES	45	Fully Reported
	<b>EU18</b> PERCENTAGE OF CONTRACTOR AND SUBCONTRACTOR EMPLOYEES THAT HAVE UNDERGONE RELEVANT HEALTH AND SAFETY TRAINING		Not Reported

Labor/Management Relations	<b>G4- DMA</b>		
	<b>LA2</b> BENEFITS PROVIDED TO FULL-TIME EMPLOYEES THAT ARE NOT PROVIDED TO TEMPORARY OR PART-TIME EMPLOYEES, BY SIGNIFICANT LOCATIONS OF OPERATION		Not Reported
	<b>LA3</b> RETURN TO WORK AND RETENTION RATES AFTER PARENTAL LEAVE, BY GENDER	43	Fully Reported
	<b>LA4</b> MINIMUM NOTICE PERIODS REGARDING OPERATIONAL CHANGES, INCLUDING WHETHER THESE ARE SPECIFIED IN COLLECTIVE AGREEMENTS		Not Reported
Occupational Health and Safety	<b>G4- DMA</b>		
	<b>LA5</b> PERCENTAGE OF TOTAL WORKFORCE REPRESENTED IN FORMAL JOINT MANAGEMENT-WORKER HEALTH AND SAFETY COMMITTEES THAT HELP MONITOR AND ADVISE ON OCCUPATIONAL HEALTH AND SAFETY PROGRAMS	50	Fully Reported
	<b>LA6</b> TYPE OF INJURY AND RATES OF INJURY, OCCUPATIONAL DISEASES, LOST DAYS, AND ABSENTEEISM, AND TOTAL NUMBER OF WORK-RELATED FATALITIES, BY REGION AND BY GENDER	50, 51	Fully Reported
	<b>"Additional disclosure requirements</b> Report on health and safety performance of contractors and subcontractors working onsite or on behalf of the reporting organization off site."		
	<b>LA7</b> WORKERS WITH HIGH INCIDENCE OR HIGH RISK OF DISEASES RELATED TO THEIR OCCUPATION		Not Reported
	<b>LA8</b> HEALTH AND SAFETY TOPICS COVERED IN FORMAL AGREEMENTS WITH TRADE UNIONS		Not Reported
Training and Education	<b>G4- DMA</b>		
	<b>LA9</b> AVERAGE HOURS OF TRAINING PER YEAR PER EMPLOYEE BY GENDER, AND BY EMPLOYEE CATEGORY	46	Fully Reported
	<b>LA10</b> PROGRAMS FOR SKILLS MANAGEMENT AND LIFELONG LEARNING THAT SUPPORT THE CONTINUED EMPLOYABILITY OF EMPLOYEES AND ASSIST THEM IN MANAGING CAREER ENDINGS	45	Fully Reported
	<b>LA11</b> PERCENTAGE OF EMPLOYEES RECEIVING REGULAR PERFORMANCE AND CAREER DEVELOPMENT REVIEWS, BY GENDER AND BY EMPLOYEE CATEGORY	43	Fully Reported
Diversity and Equal Opportunity	<b>G4- DMA</b>		
	<b>LA12</b> COMPOSITION OF GOVERNANCE BODIES AND BREAKDOWN OF EMPLOYEES PER EMPLOYEE CATEGORY ACCORDING TO GENDER, AGE GROUP, MINORITY GROUP MEMBERSHIP, AND OTHER INDICATORS OF DIVERSITY	44	Partially Reported
Equal Remuneration for Women and Men	<b>G4- DMA</b>		
	<b>LA13</b> RATIO OF BASIC SALARY AND REMUNERATION OF WOMEN TO MEN BY EMPLOYEE CATEGORY, BY SIGNIFICANT LOCATIONS OF OPERATION		Not Reported
Supplier Assessment for Labor Practices	<b>G4- DMA</b>		
	<b>LA14</b> PERCENTAGE OF NEW SUPPLIERS THAT WERE SCREENED USING LABOR PRACTICES CRITERIA	43	Partially Reported
	<b>La15</b> SIGNIFICANT ACTUAL AND POTENTIAL NEGATIVE IMPACTS FOR LABOR PRACTICES IN THE SUPPLY CHAIN AND ACTIONS TAKEN		Not Reported
Labor Practices Grievance Mechanisms	<b>G4- DMA</b>		
	<b>LA16</b> NUMBER OF GRIEVANCES ABOUT LABOR PRACTICES FILED, ADDRESSED, AND RESOLVED THROUGH FORMAL GRIEVANCE MECHANISMS	44	Partially Reported
<b>Sub- Category: Human Rights</b>			
Investment	<b>G4- DMA</b>		
	<b>HR1</b> TOTAL NUMBER AND PERCENTAGE OF SIGNIFICANT INVESTMENT AGREEMENTS AND CONTRACTS THAT INCLUDE HUMAN RIGHTS CLAUSES OR THAT UNDERWENT HUMAN RIGHTS SCREENING		Not Reported
	<b>HR2</b> TOTAL HOURS OF EMPLOYEE TRAINING ON HUMAN RIGHTS POLICIES OR PROCEDURES CONCERNING ASPECTS OF HUMAN RIGHTS THAT ARE RELEVANT TO OPERATIONS, INCLUDING THE PERCENTAGE OF EMPLOYEES TRAINED		Not Reported

Non-discrimination	<b>G4- DMA</b> <b>HR3</b> TOTAL NUMBER OF INCIDENTS OF DISCRIMINATION AND CORRECTIVE ACTIONS TAKEN	44	Fully Reported
Freedom of Association and Collective Bargaining	<b>HR4</b> OPERATIONS AND SUPPLIERS IDENTIFIED IN WHICH THE RIGHT TO EXERCISE FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING MAY BE VIOLATED OR AT SIGNIFICANT RISK, AND MEASURES TAKEN TO SUPPORT THESE RIGHTS  <b>"G4-DMA Additional Guidance</b> Report on management mechanisms to address the right to organize, right to bargain and right to strike or instances of lock out, given the context of the industry's need to ensure continuous provision of essential services. Where the right to strike does not exist or is limited, report on remedial measures such as binding arbitration. Where freedom of association or expression are limited or prevented by regulatory regime, report on mechanisms and processes that exist for getting employee input on conditions of employment."		Not Reported
Child Labor	<b>G4- DMA</b> <b>HR5</b> OPERATIONS AND SUPPLIERS IDENTIFIED AS HAVING SIGNIFICANT RISK FOR INCIDENTS OF CHILD LABOR, AND MEASURES TAKEN TO CONTRIBUTE TO THE EFFECTIVE ABOLITION OF CHILD LABOR	53	Partially Reported
Forced or Compulsory Labor	<b>G4- DMA</b> <b>HR6</b> OPERATIONS AND SUPPLIERS IDENTIFIED AS HAVING SIGNIFICANT RISK FOR INCIDENTS OF FORCED OR COMPULSORY LABOR, AND MEASURES TO CONTRIBUTE TO THE ELIMINATION OF ALL FORMS OF FORCED OR COMPULSORY LABOR	53	Fully Reported
Security Practices	<b>G4- DMA</b> <b>HR7</b> PERCENTAGE OF SECURITY PERSONNEL TRAINED IN THE ORGANIZATION'S HUMAN RIGHTS POLICIES OR PROCEDURES THAT ARE RELEVANT TO OPERATIONS		Not Reported
Indigenous Rights	<b>G4- DMA</b> <b>HR8</b> TOTAL NUMBER OF INCIDENTS OF VIOLATIONS INVOLVING RIGHTS OF INDIGENOUS PEOPLES AND ACTIONS TAKEN		Not Reported
Assessment	<b>G4- DMA</b> <b>HR9</b> TOTAL NUMBER AND PERCENTAGE OF OPERATIONS THAT HAVE BEEN SUBJECT TO HUMAN RIGHTS REVIEWS OR IMPACT ASSESSMENTS		Not Reported
Supplier Human Rights Assessment	<b>G4- DMA</b> <b>HR10</b> PERCENTAGE OF NEW SUPPLIERS THAT WERE SCREENED USING HUMAN RIGHTS CRITERIA <b>HR11</b> SIGNIFICANT ACTUAL AND POTENTIAL NEGATIVE HUMAN RIGHTS IMPACTS IN THE SUPPLY CHAIN AND ACTIONS TAKEN		Not Reported Not Reported
Human Rights Grievance Mechanisms	<b>G4- DMA</b> <b>HR12</b> NUMBER OF GRIEVANCES ABOUT HUMAN RIGHTS IMPACTS FILED, ADDRESSED, AND RESOLVED THROUGH FORMAL GRIEVANCE MECHANISMS	44	Partially Reported
<b>Sub Category: Society</b>			
Local Communities	<b>G4- DMA</b> <b>SO1</b> PERCENTAGE OF OPERATIONS WITH IMPLEMENTED LOCAL COMMUNITY ENGAGEMENT, IMPACT ASSESSMENTS, AND DEVELOPMENT PROGRAMS <b>SO2</b> OPERATIONS WITH SIGNIFICANT ACTUAL AND POTENTIAL NEGATIVE IMPACTS ON LOCAL COMMUNITIES <b>EU22</b> NUMBER OF PEOPLE PHYSICALLY OR ECONOMICALLY DISPLACED AND COMPENSATION, BROKEN DOWN BY TYPE OF PROJECT  <b>"G4-DMA Additional Guidance</b> Stakeholder participation in decision making processes related to energy planning and infrastructure development Approach to managing the impacts of displacement Report whether the organization's programs for managing community impacts have been effective in mitigating negative impacts and maximizing positive impacts, including the scale of persons affected."	55, 63	Fully Reported Not Reported Not Reported
Anti-corruption	<b>G4- DMA</b> <b>SO3</b> TOTAL NUMBER AND PERCENTAGE OF OPERATIONS ASSESSED FOR RISKS RELATED TO CORRUPTION AND THE SIGNIFICANT RISKS IDENTIFIED <b>SO4</b> COMMUNICATION AND TRAINING ON ANTI-CORRUPTION POLICIES AND PROCEDURES <b>SO5</b> CONFIRMED INCIDENTS OF CORRUPTION AND ACTIONS TAKEN	16	Not Reported Partially Reported Not Reported

Public Policy	<b>G4- DMA</b> <b>So6</b> TOTAL VALUE OF POLITICAL CONTRIBUTIONS BY COUNTRY AND RECIPIENT/BENEFICIARY		Not Reported
Anti-competitive Behavior	<b>G4- DMA</b> <b>SO7</b> TOTAL NUMBER OF LEGAL ACTIONS FOR ANTI-COMPETITIVE BEHAVIOR, ANTI-TRUST, AND MONOPOLY PRACTICES AND THEIR OUTCOMES		Not Reported
Compliance	<b>G4- DMA</b> <b>SO8</b> MONETARY VALUE OF SIGNIFICANT FINES AND TOTAL NUMBER OF NON-MONETARY SANCTIONS FOR NON-COMPLIANCE WITH LAWS AND REGULATIONS		Not Reported
Supplier Assessment for Impacts on Society	<b>G4- DMA</b> <b>SO9</b> PERCENTAGE OF NEW SUPPLIERS THAT WERE SCREENED USING CRITERIA FOR IMPACTS ON SOCIETY	53	Partially Reported
	<b>SO10</b> SIGNIFICANT ACTUAL AND POTENTIAL NEGATIVE IMPACTS ON SOCIETY IN THE SUPPLY CHAIN AND ACTIONS TAKEN		Not Reported
Grievance Mechanisms for Impacts on Society	<b>G4- DMA</b> <b>SO11</b> NUMBER OF GRIEVANCES ABOUT IMPACTS ON SOCIETY FILED, ADDRESSED, AND RESOLVED THROUGH FORMAL GRIEVANCE MECHANISMS		Not Reported
Disaster/ Emergency Planning and Response	This sector specific Aspect does not contain Indicators.* <b>"G4-DMA Additional Guidance</b> Contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans"		
<b>Sub- Category: Product Responsibility</b>			
Customer Health and Safety	<b>G4- DMA</b> <b>PR1</b> PERCENTAGE OF SIGNIFICANT PRODUCT AND SERVICE CATEGORIES FOR WHICH HEALTH AND SAFETY IMPACTS ARE ASSESSED FOR IMPROVEMENT		Not Reported/ Not Applicable
	<b>PR2</b> TOTAL NUMBER OF INCIDENTS OF NON-COMPLIANCE WITH REGULATIONS AND VOLUNTARY CODES CONCERNING THE HEALTH AND SAFETY IMPACTS OF PRODUCTS AND SERVICES DURING THEIR LIFE CYCLE, BY TYPE OF OUTCOMES		Not Reported
	<b>EU25</b> NUMBER OF INJURIES AND FATALITIES TO THE PUBLIC INVOLVING COMPANY ASSETS, INCLUDING LEGAL JUDGMENTS, SETTLEMENTS AND PENDING LEGAL CASES OF DISEASES	27	Fully Reported
	<b>"G4-DMA Additional Guidance</b> For electric utilities the following categories should also be assessed <ul style="list-style-type: none"> <li>• Resource planning</li> <li>• Generation</li> <li>• Transmission</li> <li>• Distribution</li> <li>• Use</li> </ul> State the processes for assessing community health risks including monitoring, prevention measures and, if applicable, long term health-related studies. Identify community health risks that are assessed such as: <ul style="list-style-type: none"> <li>• Compliance with exposure limit(s) to electric fields (in kV per m) and magnetic fields (in µT) where available, for members of the public and employees in the areas in which the reporting organization operates."</li></ul>		
Product and Service Labeling	<b>G4- DMA</b> <b>PR3</b> TYPE OF PRODUCT AND SERVICE INFORMATION REQUIRED BY THE ORGANIZATION'S PROCEDURES FOR PRODUCT AND SERVICE INFORMATION AND LABELING, AND PERCENTAGE OF SIGNIFICANT PRODUCT AND SERVICE CATEGORIES SUBJECT TO SUCH INFORMATION REQUIREMENTS		Not Applicable
	<b>PR4</b> TOTAL NUMBER OF INCIDENTS OF NON-COMPLIANCE WITH REGULATIONS AND VOLUNTARY CODES CONCERNING PRODUCT AND SERVICE INFORMATION AND LABELING, BY TYPE OF OUTCOMES		Not Applicable
	<b>PR5</b> RESULTS OF SURVEYS MEASURING CUSTOMER SATISFACTION		Not Applicable
Marketing Communications	<b>G4- DMA</b> <b>PR6</b> SALE OF BANNED OR DISPUTED PRODUCTS		Not Applicable
	<b>PR7</b> TOTAL NUMBER OF INCIDENTS OF NON-COMPLIANCE WITH REGULATIONS AND VOLUNTARY CODES CONCERNING MARKETING COMMUNICATIONS, INCLUDING ADVERTISING, PROMOTION, AND SPONSORSHIP, BY TYPE OF OUTCOMES		Not Applicable






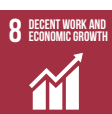




Customer Privacy	<b>G4- DMA</b> <b>PR8</b> TOTAL NUMBER OF SUBSTANTIATED COMPLAINTS REGARDING BREACHES OF CUSTOMER PRIVACY AND LOSSES OF CUSTOMER DATA		Not Applicable
Compliance	<b>G4- DMA</b> <b>PR9</b> MONETARY VALUE OF SIGNIFICANT FINES FOR NON-COMPLIANCE WITH LAWS AND REGULATIONS CONCERNING THE PROVISION AND USE OF PRODUCTS AND SERVICES		Not Reported
Access	<b>"G4-DMA Additional Guidance</b> Programs, including those in partnership with government, to improve or maintain access to electricity and customer support services"		Not Applicable
	<b>EU26</b> PERCENTAGE OF POPULATION UNSERVED IN LICENSED DISTRIBUTION OR SERVICE AREAS		Not Applicable
	<b>EU27</b> NUMBER OF RESIDENTIAL DISCONNECTIONS FOR NON-PAYMENT, BROKEN DOWN BY DURATION OF DISCONNECTION AND BY REGULATORY REGIME		
	<b>EU28</b> POWER OUTAGE FREQUENCY	28	Fully Reported
	<b>EU29</b> AVERAGE POWER OUTAGE DURATION		Not Reported
	<b>EU30</b> AVERAGE PLANT AVAILABILITY FACTOR BY ENERGY SOURCE AND BY REGULATORY REGIME	28	Fully Reported
Provision of Information	This sector specific Aspect does not contain Indicators.*		Not Applicable
	<b>"G4-DMA Additional Guidance</b> Practices to address language, cultural, low literacy and disability related barriers to accessing and safely using electricity and customer support services"		Not Applicable

# Sustainable Development Goals (SDGs)

## Our Performance

For the purpose of this report we have identified the Sustainable Development Goals most relevant to our operations, business strategy and Corporate Social Responsibility initiatives. Information on what OPGC is doing to address these goals can be found on the respective pages.

Logo	SDG#	Theme	Goal	Page No.
	SDG1	No Poverty	End poverty in all its forms everywhere	55
	SDG3	Good Health and Well-being	Ensure healthy lives and promote well-being for all at all ages	61
	SDG4	Quality Education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	57, 58
	SDG6	Clean Water and Sanitation	Ensure availability and sustainable management of water and sanitation for all	56, 57
	SDG7	Affordable and Clean Energy	Ensure access to affordable, reliable, sustainable and modern energy for all	27, 29
	SDG8	Decent Work and Economic Growth	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	58, 59
	SDG9	Industry, Innovation and Infrastructure	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	6, 59
	SDG13	Climate Action	Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy	33



**ODISHA POWER GENERATION CORPORATION LIMITED**  
*(A Government Company of the State of Odisha)*



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