**Rationale and key rating drivers**

The rating assigned to the proposed bank facilities of Indian Oil NTPC Green Energy Private Limited (INGEPL) derives strength from the low sales risk emanating from its draft long-term power purchase agreement (PPA) for its entire capacity. This PPA will ensure full cost recovery along with a 12% return on equity, thus yielding stable cash flows. The specific clauses in the draft PPA encompassing offtake and compensation, allowance of partial commissioning along with payment security mechanism provides comfort to the rating. Furthermore, the strong credit profile of the off-taker, i.e., Indian Oil Corporation Limited (IOCL) adds strength to the rating. Additionally, the rating favourably factors in the importance of the joint venture (JV) in reducing IOCL’s carbon footprint along with the JV’s anticipated ability in curbing power cost of IOCL substantially. The JV also paves way for NTPC Green Energy Limited (NGEL) to expand its renewable capacity under similar bilateral contracts with commercial and industrial counterparties, hence underpinning importance of the venture to NGEL. The rating also draws comfort from the healthy projected debt coverage metrics.

However, the rating is constrained by the nascent stage of project implementation, absence of actual execution of key agreements such as PPA and engineering, procurement, and construction (EPC) for remaining capacity and stabilisation risk post commissioning. Furthermore, the rating is exposed to the risk related to storage technology and dependence of generation on climactic conditions in the vicinity of the plant. Moreover, the rating also takes into account regulatory risks associated with change in open access norms.

**Rating sensitivities: Factors likely to lead to rating actions**

**Positive factors**
- Timely execution and commercialisation of capacity without and significant cost / time over run.
- Higher-than-envisioned generation levels leading to improvement in coverage metrics.

**Negative factors**
- Material adverse changes in configuration of draft offtake arrangement.
- Inordinate delay in commissioning of the project leading to significant cost over-runs or significant debt addition leading to lower-than-envisioned coverage metrics.
- Non-receipt of timely support from the promoters for any cost over-run or dilution in philosophy of promoters towards the JV.
- Sub-optimal generation less than declared availability as per draft PPA on a sustained basis thereby impacting coverage metrics.
- Material delay in receipt of payments from off-takers leading to debtor cycle of more than 90 days.

**Analytical approach:** Standalone.

**Outlook:** Stable.
The stable outlook is on account of the expectation of timely financial closure and promoter funding for the project. Furthermore, the outlook is supported by the satisfactory revenue visibility, given the presence of a long-term PPA under cost plus mechanism and anticipated timely receipt from its off-taker.

**Detailed description of the key rating drivers**

**Key strengths**

The JV promoters have extensive experience

INGEPL, incorporated in 2023, is a JV between IOCL and NGEL, each holding a 50% share. IOCL, a “Maharatna”, is an integrated oil refining and marketing company having control on 11 refineries across India with a combined capacity of 80.5 million tonne per annum, which accounts for around 32% of the country’s total capacity. NGEL is a 100% subsidiary of India’s largest power generation company, i.e., NTPC Limited. NGEL has a portfolio of renewable capacity of 2.86 GW as on September 30, 2023. NGEL,

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1Complete definition of the ratings assigned are available at [www.careedge.in](http://www.careedge.in) and other CARE Ratings Ltd.’s publications
by virtue of being a wholly-owned subsidiary of NTPC Limited, has extensive experience and track of developing renewable energy projects in India. INGEPL is expected to derive comfort from NGEL’s dominant position in renewable energy sector. Furthermore, NGEL is also appointed as PMC for execution of the project which adds comfort. Both the JV partners are resourceful and are expected to extend support in terms of equity infusion, managerial and technical expertise, and deputation of personnel.

**Strategic importance of the JV for IOCL**
The 650-MW solar/wind and storage project in INGEPL has the potential to significantly reduce the carbon footprints of IOCL. It will meet a large portion of the power requirement of the new refineries of IOCL. Moreover, the quantum of projected cost savings on electricity and the steady dividend income is likely to provide sizable economic incentive to IOCL. Per CARE Ratings’ understanding, with growing importance of environmental, social, governance (ESG) norms for corporates, INGEPL is likely to remain a significant JV of IOCL.

**The proposed PPA provides long-term revenue visibility under cost plus model**
The JV is set up to meet incremental round-the-clock (RTC) demand of IOCL refineries to the tune of 650 MW. IOCL is expected to sign PPA for 650-MW RTC power supply with INGEPL for 25 years. The contractual terms of PPAs support complete recovery of cost including debt servicing and fixed return on equity of 12% based on achievement of annual availability as per the PPA. Moreover, adequate representation of clauses, such as minimum off-take, allowance of partial commissioning and late payment surcharge in the proposed PPA provides comfort.

**Strong credit profile of counterparty**
IOCL is the sole counterparty for entire 650-MW RTC power. It has strong credit profile characterised by its integrated and diversified operation and comfortable financial metrics. Hence, the payment track profile from the off-taker is likely to remain timely.

**Comfortable base case coverage metrics**
The projected average debt service coverage ratio (DSCR) is above 1.25x which is comfortable. However, the achievement of base case coverage metrics is dependent on meeting generation parameters as per the feasibility report.

**Key weaknesses**
**Project execution and stabilisation risk**
The project is exposed to significant execution risk. Timely signing and execution of key arrangements like EPC contract (for remaining capacity), module supply agreement, connectivity approvals and leasing arrangement for the pumped hydro storage capacity will be monitorable. Although the management cited receiving EoIs from several lenders, debt tie up has been pending as on December 28, 2023. The scheduled commissioning date of the entire capacity is June 2025. Moreover, the project is also exposed to stabilisation risk. Any time / cost over-run may impact the viability of the project as entire cost is to be passed through to the off-taker, i.e., IOCL, and increase in capital cost will reduce commercial benefits of the structure for IOCL.

Moreover, the management has cited that any excess cost beyond that envisaged as per the feasibility report will be funded through debt : equity of 3 : 1, and equity will be funded in proportion of shareholding of the promoters.

**Exposure to climatic and technology risk**
Given the RTC power requirement, the project is likely to witness imposition of penalties in case of non-achievement of annual availability. The extent of such penalties will be a key credit monitorable for the underlying rating. The company has also estimated excess generation as per study. As tariff is one part in nature, the company may book lesser revenues in the event of non-generation of power due to variation in weather conditions and/or equipment quality.

**Regulatory risk**
INGEPL is exposed to the regulatory risks on account of changes in open-access/captive charges. The risk is mitigated to some extent by the pass-through of such charges and losses to the customers. However, CARE Ratings notes that any upward revision in these charges and losses or adverse change in regulations would lead to increase in the landed cost of power for IOCL, impacting the tariff cost competitiveness.
**Liquidity:** Adequate  
INGEPL was incorporated in FY23, and the project is in the initial stages of development. The equity infusion for the project is expected to be done in a phased manner. IOCL board has approved equity infusion of around ₹1,660 crore. The company is expected to have sufficient liquidity buffer in terms of debt service reserve account (DSRA) / working capital (WC) lines post finalisation of sanction of term debt for financing of the project, as articulated by management.

**Applicable criteria**
- Definition of Default  
- Financial Ratios – Non financial Sector  
- Liquidity Analysis of Non-financial sector entities  
- Rating Outlook and Rating Watch  
- Infrastructure Sector Ratings  
- Solar Power Projects  
- Wind Power Projects  
- Project stage companies

**About the company and industry**

**Industry classification**

<table>
<thead>
<tr>
<th>Macro-economic Indicator</th>
<th>Sector</th>
<th>Industry</th>
<th>Basic Industry</th>
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<tbody>
<tr>
<td>Utilities</td>
<td>Power</td>
<td>Power</td>
<td>Power generation</td>
</tr>
</tbody>
</table>

INGEPL is a 50:50 JV set up by IOCL and NGEL (a wholly-owned subsidiary of NTPC Limited [rated 'CARE AAA; Stable']) to set up and supply 650 MW on RTC basis comprising 800-MW solar, 1,200-MW wind and 1,200 MWh/day (200 MW) pump storage project. The off-take mechanism with IOCL for 100% capacity is structured under a cost plus model allowing recovery of entire fixed cost along with 12% return on equity.

**Brief financials of INGEPL:** Not applicable; since the project is under construction.

**Status of non-cooperation with previous CRA:** Not applicable

**Any other information:** Not applicable

**Rating history for last three years:** Please refer Annexure-2

**Covenants of rated instrument / facility:** Detailed explanation of covenants of the rated instruments/facilities is given in Annexure-3

**Complexity level of various instruments rated:** Annexure-4

**Lender details:** Annexure-5

**Annexure-1: Details of instruments/facilities**

<table>
<thead>
<tr>
<th>Name of the Instrument</th>
<th>ISIN</th>
<th>Date of Issuance</th>
<th>Coupon Rate (%)</th>
<th>Maturity Date</th>
<th>Size of the Issue (₹ crore)</th>
<th>Rating Assigned along with Rating Outlook</th>
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<td>-</td>
<td>-</td>
<td>NA</td>
<td>10,000.00</td>
<td>CARE A; Stable</td>
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^Proposed
Annexure-2: Rating history for the last three years

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the Instrument/Bank Facilities*</th>
<th>Type</th>
<th>Amount Outstanding (₹ crore)</th>
<th>Current Ratings</th>
<th>Date(s) and Rating(s) assigned in 2023-2024</th>
<th>Date(s) and Rating(s) assigned in 2022-2023</th>
<th>Date(s) and Rating(s) assigned in 2021-2022</th>
<th>Date(s) and Rating(s) assigned in 2020-2021</th>
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<td>Fund-based - LT-Term loan</td>
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<td>CARE A; Stable</td>
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<td></td>
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</table>

*Long term/Short term.

Annexure-3: Detailed explanation of covenants of the rated instruments/facilities: Not applicable

Annexure-4: Complexity level of the various instruments rated

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the Instrument</th>
<th>Complexity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fund-based - LT-Term loan</td>
<td>Simple</td>
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</table>

Annexure-5: Lender details

To view the lender wise details of bank facilities please click here

Note on the complexity levels of the rated instruments: CARE Ratings has classified instruments rated by it on the basis of complexity. Investors/market intermediaries/regulators or others are welcome to write to care@careedge.in for any clarifications.
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