National Renewable Energy Database

What is the issue?

- A national renewable energy database could be developed in order to help the policymakers and developers.
- For the former, it helps for them to make effective evidence-based interventions. For the latter, it can be a valuable tool to source capital at scale on favourable terms.

What is India's current status?

- India has come a long way in its efforts to **decarbonise electricity generation.**
- Installed solar and wind capacity has now crossed 68 GW, compared to a modest 16 GW in 2010.
- From a utility-scale solar perspective, India already ranks the third largest market globally, after China and the US.
- Enabling policies and interventions is vital to any business generating returns over an extended time period, but requiring vast upfront capital investment.

How RE is different from other infrastructure?

- Renewable energy (RE) is no different from other infrastructure classes in the above respect.
- There are two complementary aspects which sets RE apart, they are,
    1. The **scale of the ambition** set by the government, and
    2. Its **unique operating profile** on the other.
- Taken together, these two aspects combine to form the perfect setting for the effective harvesting of data.

What is the scale of government's ambition?

- The Prime Minister has recently announced a **target of 450 GW of installed RE** capacity by 2030.
- This will require the **mobilisation of investment flows** equivalent to many hundreds of billions of dollars, volumes yet unseen in India.
- To put it into perspective, the Reserve Bank of India (RBI) estimated the accumulated exposure of the Indian scheduled commercial banking system to

the power sector as a whole, to be around Rs 5.65 lakh crore.
- However, it pales in comparison to the amount required to effect India's energy transition, which will need capital for generation assets, for upgrading transmission and distribution infrastructure.
- Such a mammoth deployment of RE capacity will come with benefits that extend beyond decarbonisation.
- Enhancing India's claim over global climate leadership is one such benefit, with the potential to generate substantial diplomatic capital at an international level.
- When it comes to RE, the stakes could not be higher.
- But, the question is that whether the current policies are sufficient to deliver on the scale of India's ambitions.

What could be done on the policymaking front?

- On the policymaking front, interventions for traditional power generators have been geared to address long gestation periods, cost overruns, fuel availability, and environmental risk, among others.
- However, RE is largely immune to such risks.
- Therefore, policymakers have focused on addressing RE-specific risks, with solar parks and power purchase agreements (PPAs) executed by quasi-sovereign counterparties being some innovative examples.

How can RE-specific interventions evolve even further?

- To begin with, let's take the sheer number of RE project-specific special purpose vehicles (SPVs) that are set up to feed electricity into the grid.
- Each SPV is distinctly **incorporated under the Companies Act**, primarily to enable sponsor developers to raise non-recourse project debt on attractive terms.
- Some of the larger RE developers already have scores of SPVs under their holding companies.
- India's first solar park, established in Charanka, Gujarat, in 2012, itself has in excess of 30 project-specific SPVs, each owned by a different developer.
- Now, add to this pool the numerous project SPVs that will be established along the road to the 450 GW RE target, adding to the hundreds that are already operational or are under development.

What kind of information will be available?

- **Each project SPV generates** electricity, and also another extremely valuable commodity, i.e. **information**.
- Appropriately harvesting and disseminating this information can profoundly

impact the pace of deployment of RE capacities in India.

- It means that the information that investors require from any project SPV is surprisingly modest in scope.
- It comprises a specific **mix of techno-commercial data**, including but not limited to grid availability, which can be correlated against variables such as PPA tariffs and offtaker identity.
- This information is indirectly **embedded in the annual accounts** that individual project SPVs file with the ministry of corporate affairs.
- Such accounts are readily available in the public domain.

What are the challenges?

- Even though the data is available in the public domain, the challenge is that the **relevant data points are not easily extractable**.
- Existing databases aggregate information at state, distribution company or developer-level on the basis of voluntary and selective contributions.
- This information **fails to match the granular detail** that project SPV-level data contributions would provide.
- Investors have backed the deployment of sizeable RE capacities in India despite a discernible gap between the **type of information** valued by them and what is readily available.
- Multiple refinements to RE policymaking are under development to facilitate future deployments.
- These will undoubtedly play a crucial role in mobilising the investment flow.
- However, they are **unlikely to achieve their potential** in an information vacuum.

Source: Financial Express