Supply and Demand Challenges

Working Group #1

Common Themes

- A strong majority of respondents identify **tightening supply-demand balance as a core driver of both affordability and reliability concerns**, though different causes are identified.
- Repeated themes include:
  - Maryland relies heavily on **imported electricity**, with multiple respondents citing Maryland as a 36–40% net importer of power
  - **Retirements of dispatchable generation** are occurring faster than replacement resources are entering service
  - **Large new loads** — especially data centers, electrification, and digital infrastructure — are now the dominant future planning concern
  - **PJM capacity prices** are widely viewed as the most visible symptom of supply tightening, with repeated references to 600–800% auction price increases
  - Several respondents frame **demand response** as the fastest near-term supply-equivalent resource because it can create capacity quickly without new siting battles
- A recurring theme is that **Maryland customers are already paying for scarcity through capacity prices before new infrastructure arrives**.

Areas of Disagreement

- The biggest disagreement is **whether Maryland truly lacks generation, or whether the problem is deliverability and market structure.**
  - One view – Scarcity is physical and immediate; and Maryland simply needs more in-state generation.
    - There is disagreement on which kinds of generation should fill that gap, with some advocating for resources such as gas, storage, nuclear, and dispatchable resources
    - And others advocating for solar, offshore wind, storage, demand response, and efficiency before thermal buildout
  - Another view – Maryland may have sufficient regional supply, but constraints arise because:
    - transmission limits restrict deliverability
    - PJM market rules drive locational price spikes
    - generation exists regionally but not where needed most

Areas of Disagreement (cont.)

- Another disagreement is whether **large loads** (especially data centers) are a legitimate economic growth opportunity requiring accommodation, or the single largest driver of avoidable cost pressure.

- There is also disagreement over whether **new load forecasts are overstated** – concern that phantom data center load forecasts may be inflating infrastructure planning unnecessarily.

Particularly Interesting Points

- Several of the most technically interesting responses focus on data centers as a planning distortion:
  - projected data center growth identified as the primary reason for recent PJM capacity conditions
  - concern that Maryland customers may pay for transmission and capacity tied to loads that never materialize
  - repeated suggestion that large loads should bear more direct system costs
- A particularly notable comment is that: “Demand response resources can be built quickly (<90 days), are abundant – and no one ever protested locating a flexible demand response resource in a neighborhood.”

Potential Solutions

As identified by working group participants in a survey earlier this year.

Solution	Working Group
Increase generation adoption	Supply & Demand
Public funds to incentivize consumer actions	Supply & Demand
Streamline approvals for new generation	Supply & Demand
Encourage development in nuclear and natural gas	Supply & Demand
Rebuilding in-state tech-neutral dispatchable and firm resources	Supply & Demand
Facilitate timely entry of new accredited supply — regulatory certainty, state siting coordination	Supply & Demand
Seeking reliable in-state generation	Supply & Demand
State funding to encourage new generation construction	Supply & Demand
Remove duplicative permitting for rooftop solar	Supply & Demand
Target brownfields, rooftops, and other zones instead of productive farmland for renewable development	Supply & Demand, Disconnect Among Policy Goals
Siting and permitting	Supply & Demand, Transmission & Distribution
Clear, predictable locally coordinated permitting processes	Supply & Demand, Transmission & Distribution
Broader regional transmission planning over small localized upgrades	Supply & Demand, Transmission & Distribution
Reliability planning with confirmed load growth and realistic construction timelines	Supply & Demand, Transmission & Distribution
Economic impact analysis before environmental mandates enacted	Supply & Demand, Transmission & Distribution, Disconnect Among Policy Goals