NuScale Diverse Energy Platform

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The carbon emissions challenge

For the country:
1. Maximize use of all clean energy sources
2. Electrify the transportation sector
3. Develop clean processes for liquid fuels and petrochemicals

For nuclear energy:
1. Reach more utility customers
2. Reach more non-electric energy consumers
The NuScale solution

• Scalable in small power increments
  – Low initial commitment and cost
  – Readily expandable as demand grows
  – High reliability and continuous plant output

• Flexible for multi-product outputs
  – Co-generation of individual modules
  – Whole-module dedication to different products

• Suitable for diverse siting
  – Smaller source term per module
  – Lower likelihood of core damage
  – Multiple features to reduce and delay radionuclide release
NuScale modular plant

- Natural circulation
- Passively safe

- 160 MWt/module
- 1-12 modules/plant
Completed co-generation studies

**Oil Refinery Study**
Reducing Carbon Emissions
*(Fluor and NuScale)*

**10-Module Plant** coupled to a 250,000 barrels/d refinery

**Hydrogen Production Study**
High-Temp Steam Electrolysis
*(INL and NuScale)*

**6-Module Plant** producing 200 tons/d hydrogen for ammonia plant

**Integration with Wind Study**
Horse Butte Site
*(UAMPS, ENW and NuScale)*

**1-Module** balancing output of UAMPS 58 MWe wind farm

**Desalination Study**
Supporting a 300,000 City
*(Aquatech and NuScale)*

**8-Module Plant** producing 50 Mgal/d of clean water plus 350 MWe to the grid
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