

Impact of Recreational Marijuana Legalization

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Testimony to Joint Committee on Ballot
Measure 91 Implementation

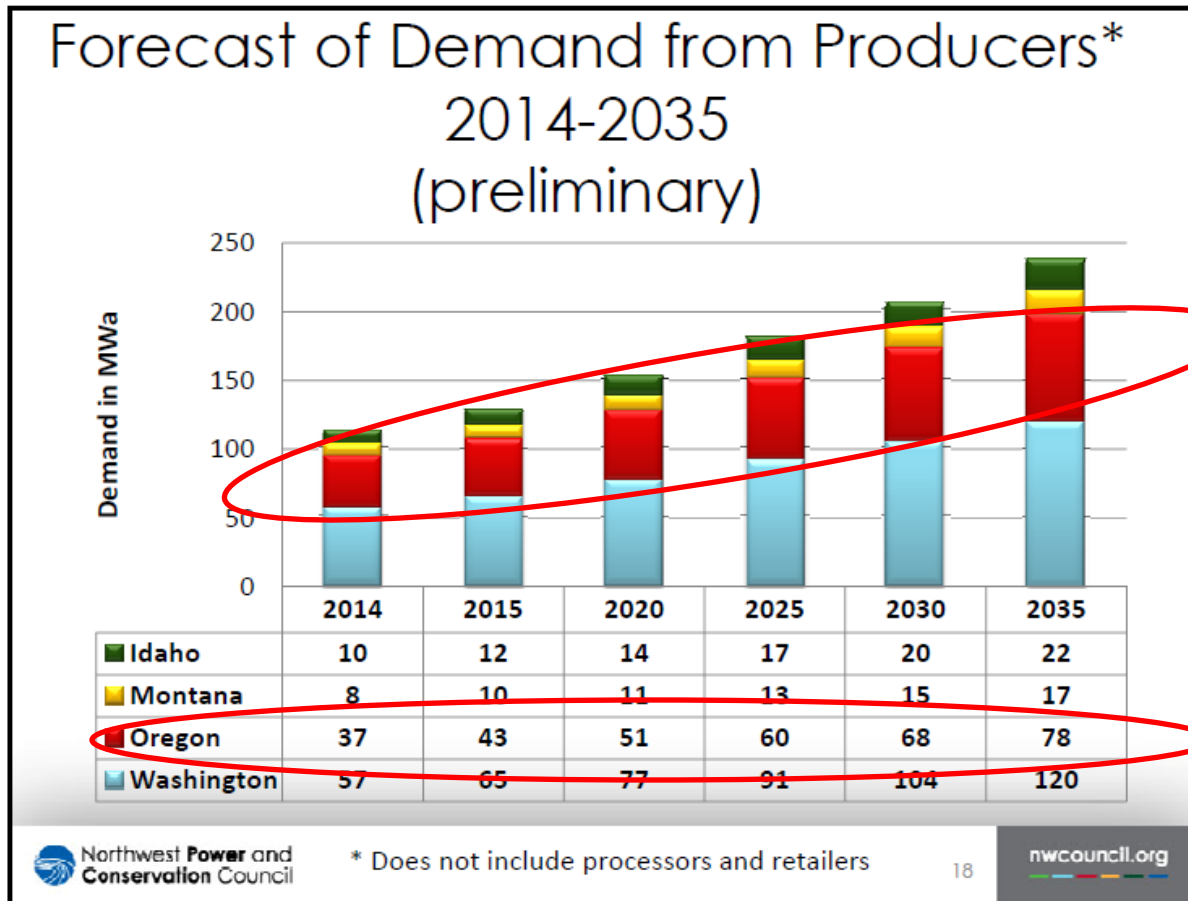


PGE Service Territory

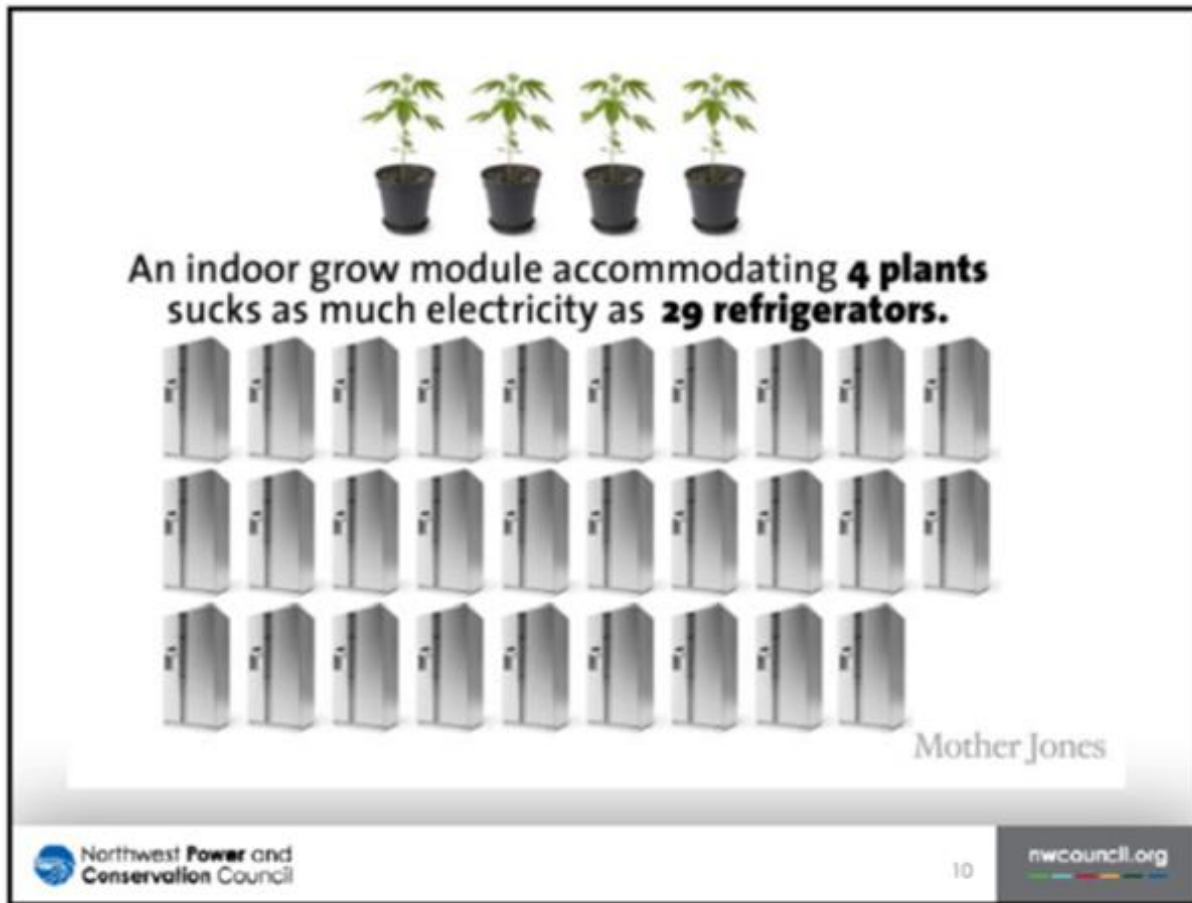
- 4,000-square-mile operating area with population of 1.7 M
- 842,000 customers
- 43% of statewide customers, 38% of load
- Area is state's economic engine – 70% of the state's GDP
- Approximately 28,000 medical marijuana card holders in the six counties we serve – we anticipate a similar large percentage of recreational and commercial growing



Oregon Energy Demand Estimate

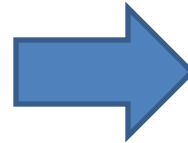


It is a lot of electricity



Commercial Marijuana Production

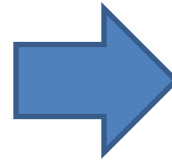
- 200 watts per square foot
- Indoor growing uses ~ 5000 KWH/kg
- Facilities in Xcel (CO) territory:
 - Average size 500kW to 2 MW
 - Flat load once operating
 - Look a little like data centers
- Indoor commercial grade cannabis production requires (per square foot):
 - 8X as much energy as a typical US commercial building
 - 18X as much energy as that of an average US home



PGE needs information from growers as to plans and usage

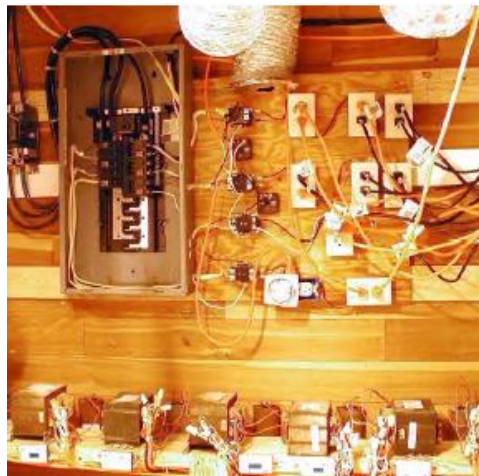
Residential Marijuana Production

- 85% of current transformer cutouts are caused by marijuana grows, legal and illegal
- PGE has already seen homes at the 10- 12,000kWH per month range
- Crews do not know whether a grow is legal or illegal before arriving



PGE needs customers to understand the safety issues involved and also communicate about usage

PGE needs to have information about legal grow operations to reduce risk to line crews in responding to outages



Some of the things we've seen



Industry Impact

- Safety: Ensure the safe working environment for employees
- Information:
 - utilities need to know about grow sites of all sizes
 - need to have messages regarding proper equipment sizing and electrical work
- Energy efficiency: are there opportunities?

