



CAT PROJECTS

Remote and Off-grid Renewables

Two paths

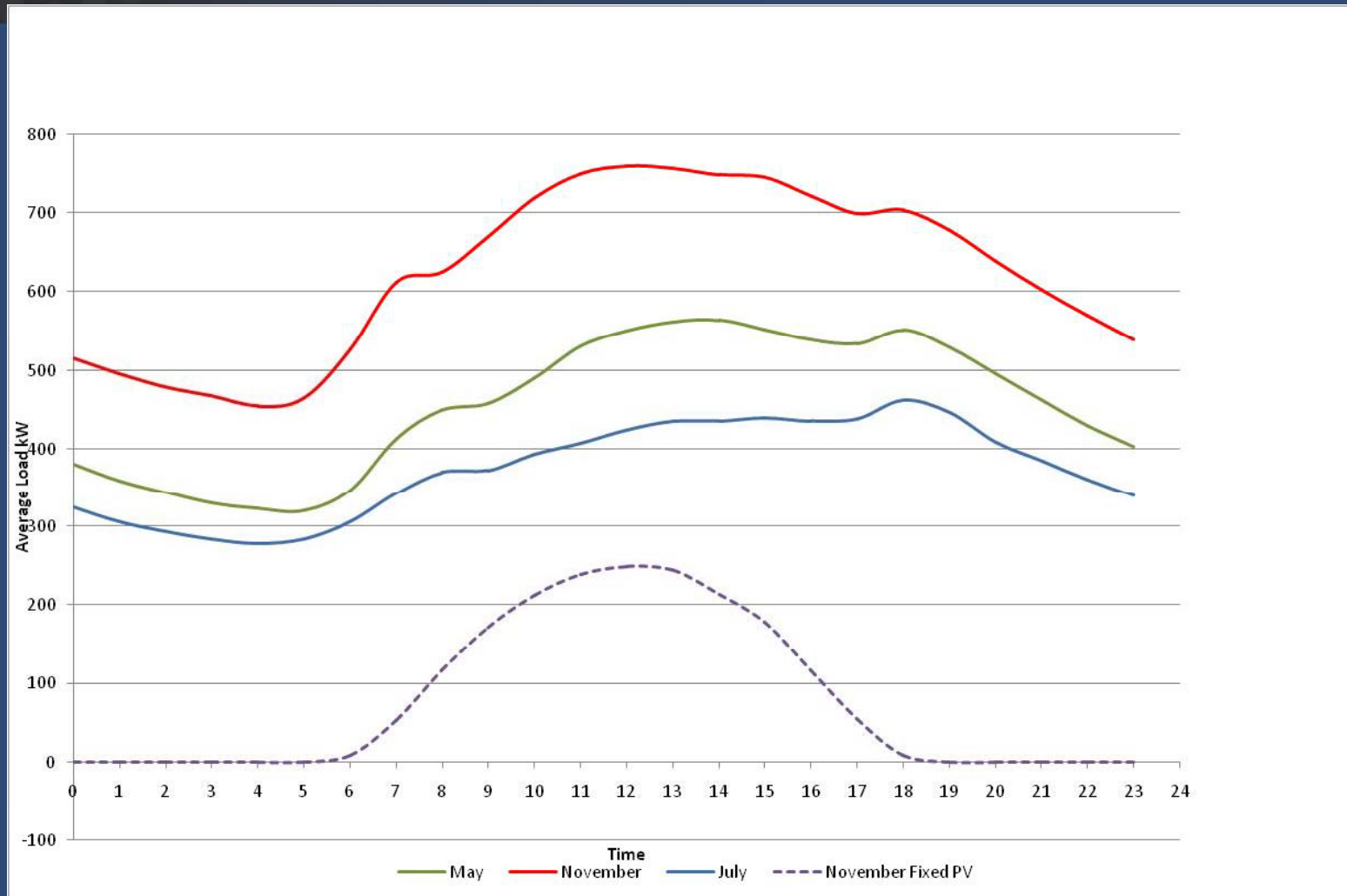
Lyndon Frearson

General Manager
CAT Projects



PROJECTS

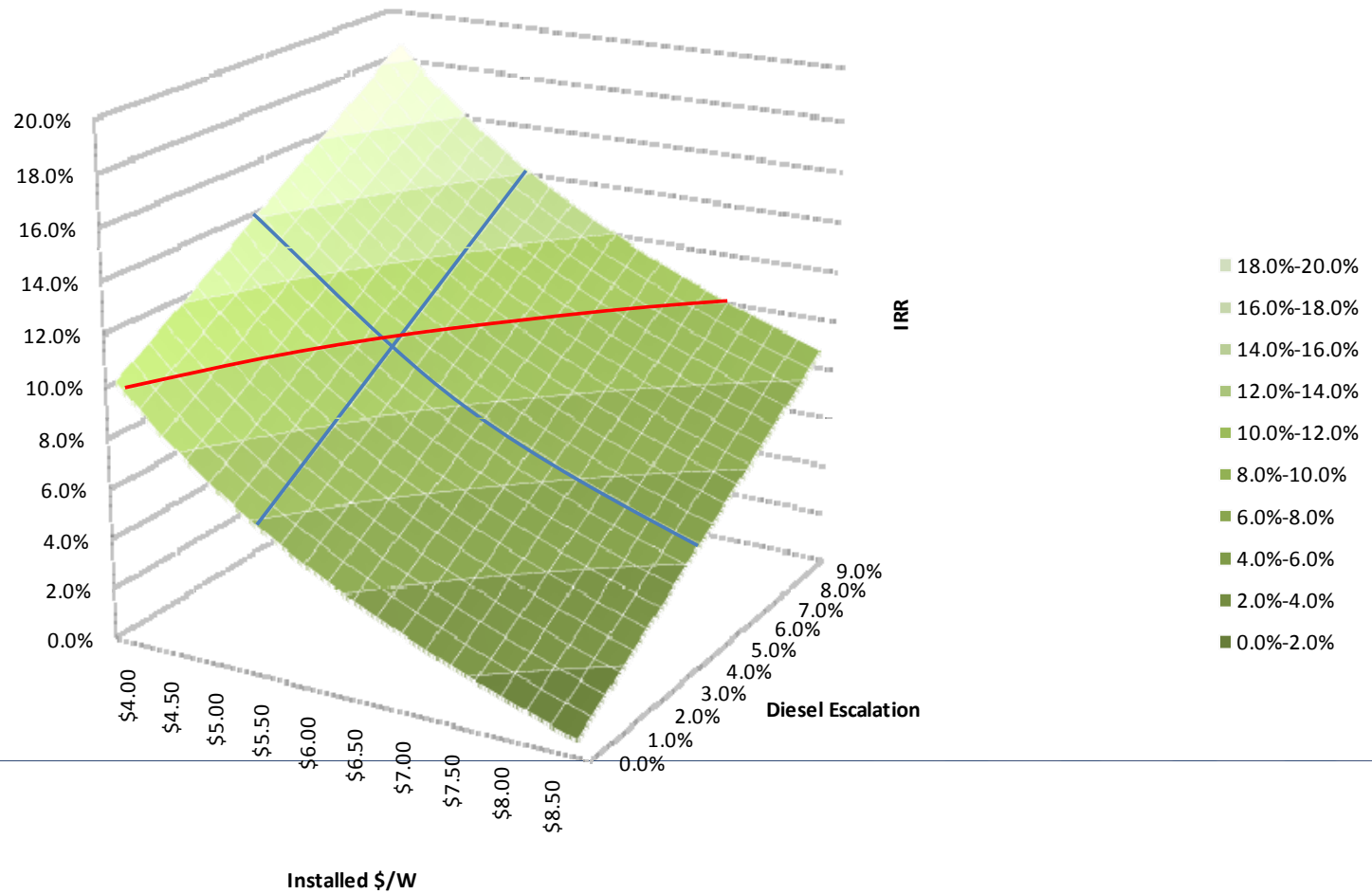
30% Penetration





PROJECTS

Installed Cost vs Diesel Price Escalation impact on IRR





CAT PROJECTS

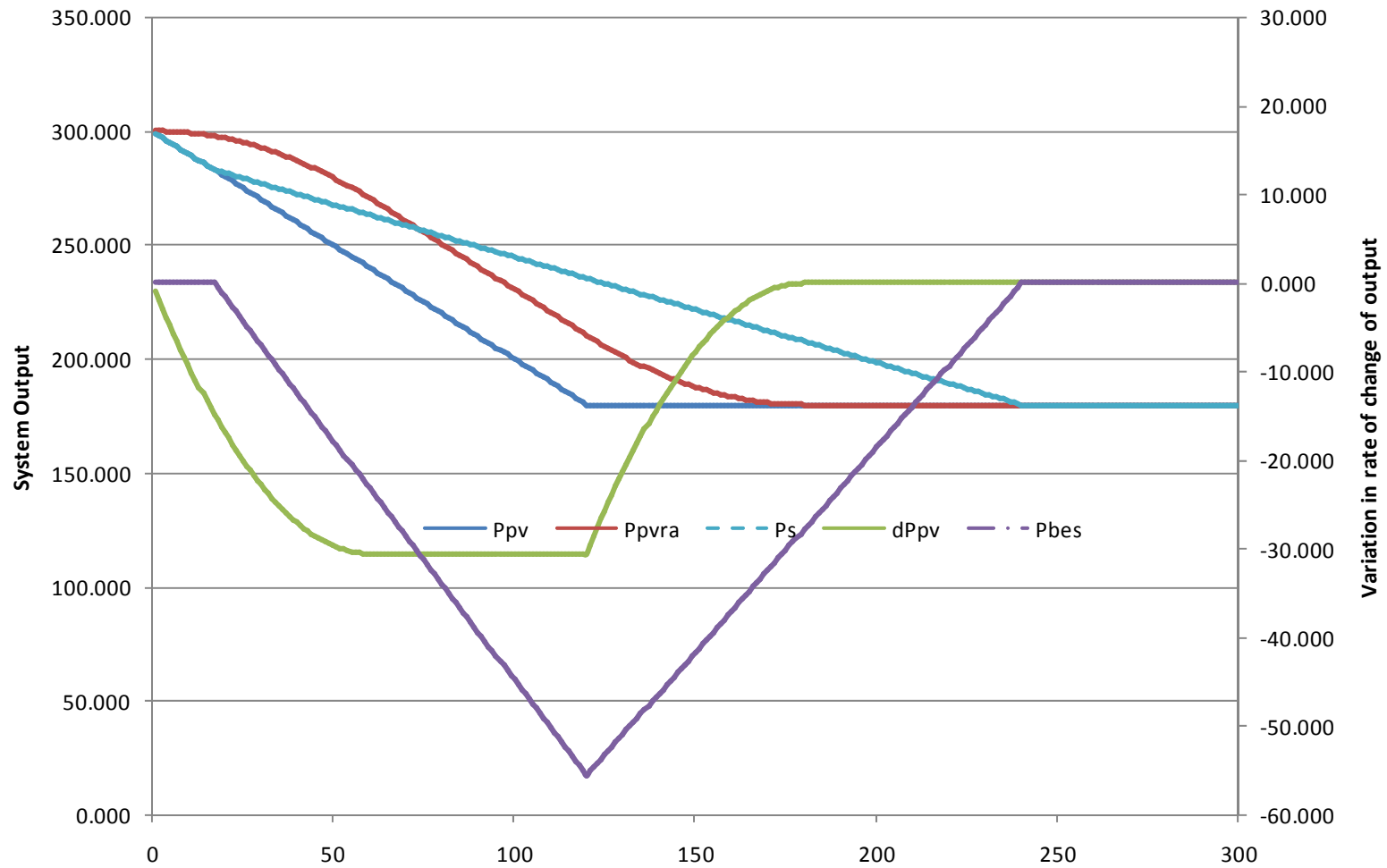
High Penetration

- High Penetration projects involve short term storage – mechanical, or chemical
- Storage is used as a buffer to provide for grid stability
- Requires structured risk management profile for supply contracts
- Can work more effectively with two complementing technologies ie wind/solar
- Can achieve >90% peak power, >40% energy



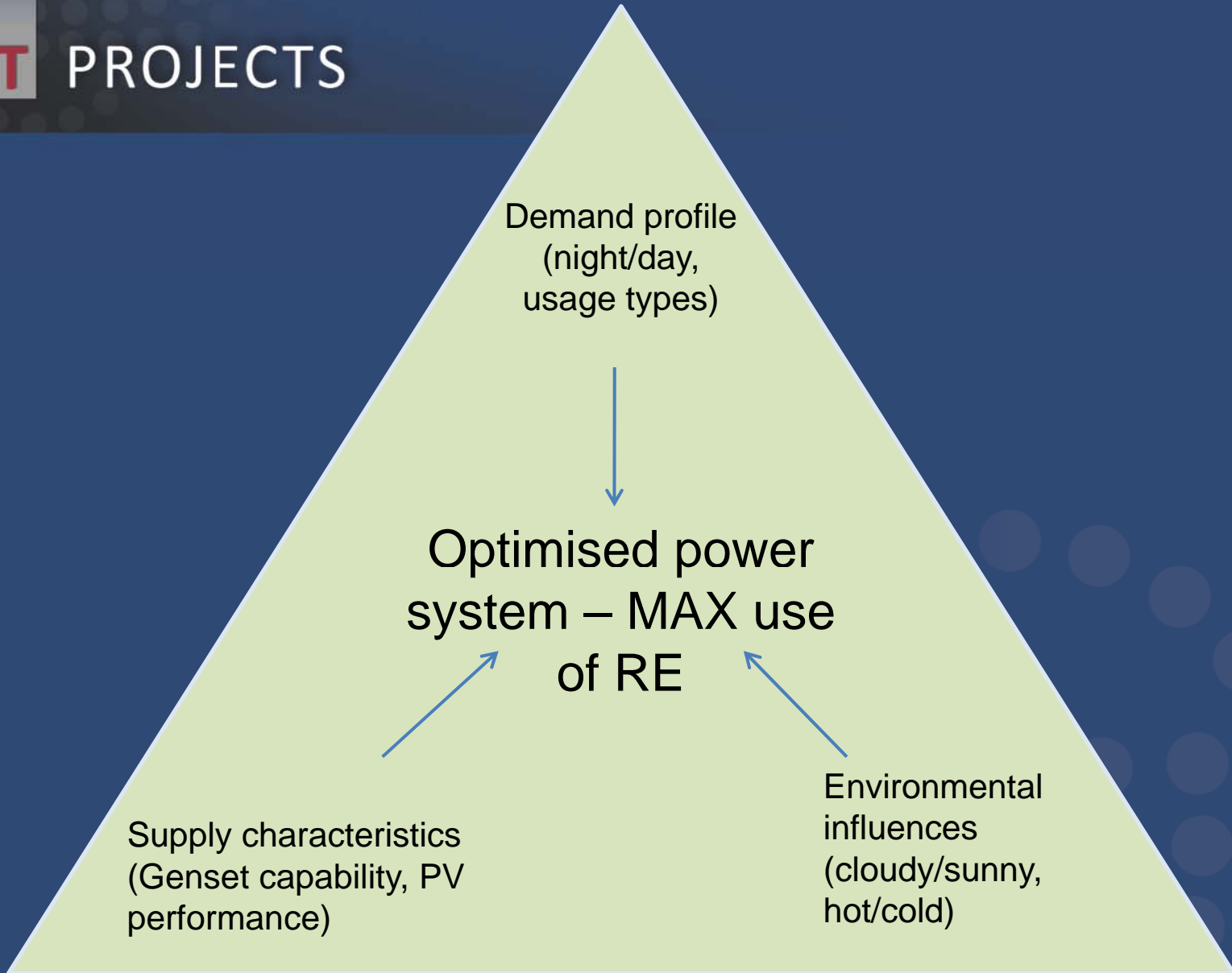
PROJECTS

120 sec linear ramp & 1 min rolling av





PROJECTS



Demand profile
(night/day,
usage types)

Optimised power
system – MAX use
of RE

Supply characteristics
(Genset capability, PV
performance)

Environmental
influences
(cloudy/sunny,
hot/cold)



PROJECTS

100% Energy Supply

