

2024 (July) South African Renewable Energy Grid Survey

Results Summary 2024 vs 2023



Contributions

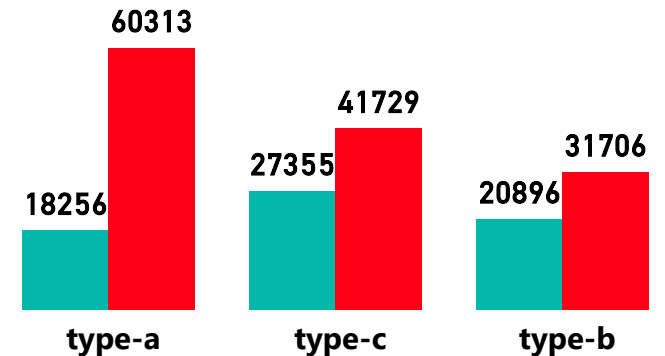


Contracted Capacity (MWac)

Contracted - grid capacity

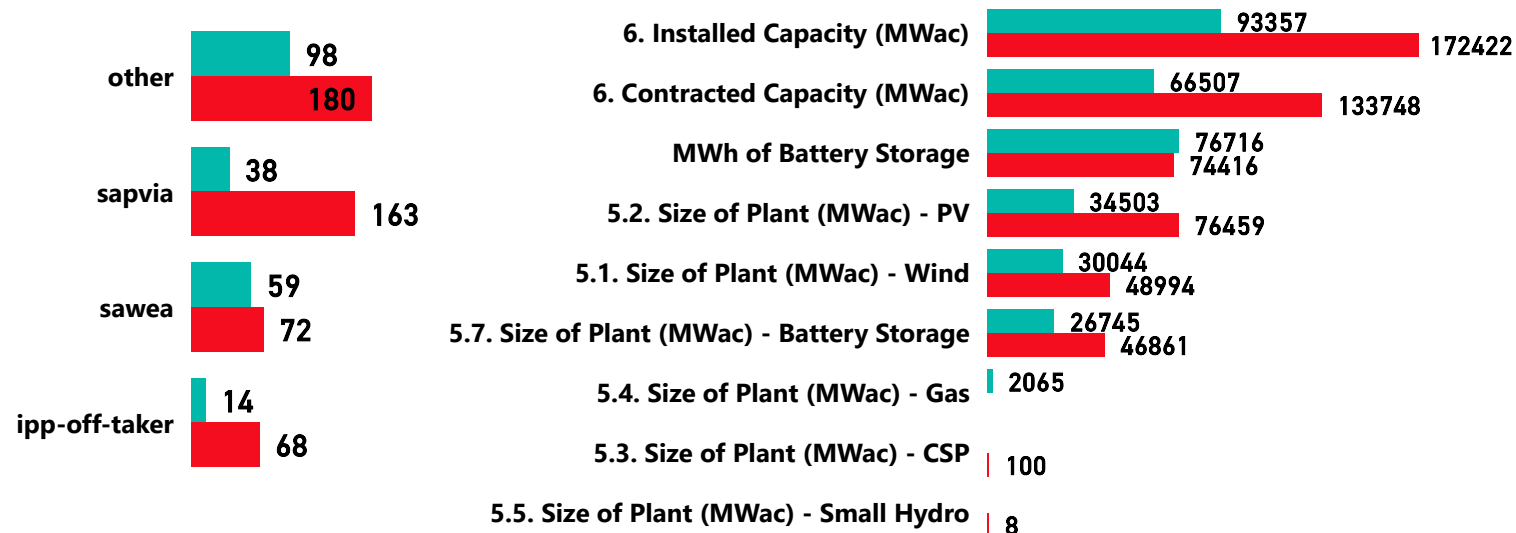
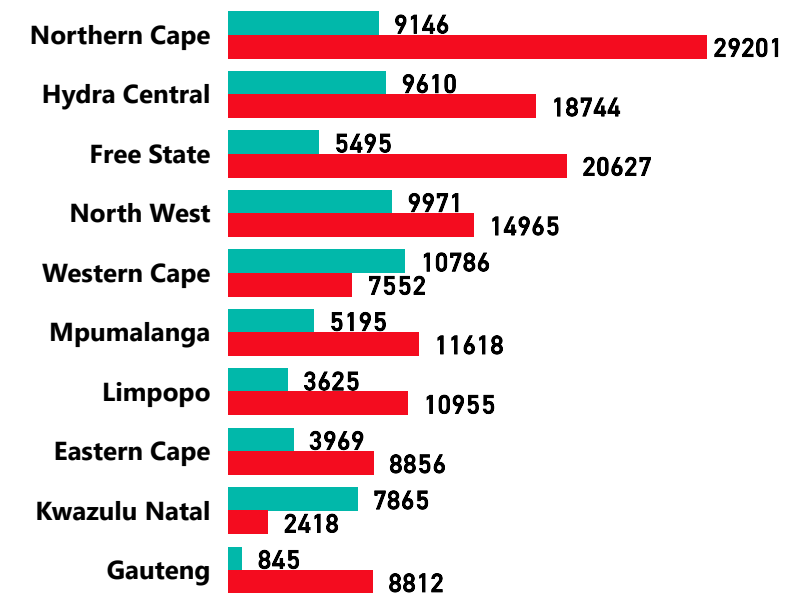


Project Type / Status (MWac)



Supply Area (MWac)

Contracted capacity



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Type

A: Project is at an Advanced Development Level.

Environmental Approval/ Record of Decision (ROD) has been granted (contributor willing to provide application reference number). The site measurement campaign and feasibility work has been completed. PPA signed or close to signature/or project would be ready to bid into the nearest REIPPP round. Projects in this category would be able to reach COD within 3 years if granted a grid connection by Eskom or the Municipality immediately. For Embedded generation projects, the project will be ready to be connected to the embedded network within 3 years.

Type

B: Project is Under Development.

Draft EIR (Environmental Impact Report) submitted or Basic Assessment report submitted (willing to provide EIA application reference number). Bird and bat monitoring already progressed (Wind only). Feasibility studies and layout are advanced or completed. Project off-taker or intended off-taker not yet finalized but in progress. Measurement campaign completed (or near completion) for 12 months. Projects in this category would be able to reach COD within 5 years if granted a grid connection by Eskom Immediately.

Type

C: Project is in Early stage of Development.

Projects in this category are still in feasibility/prefeasibility stage. Bird and bat monitoring about to begin (Wind only). Measurement campaign in progress. Developer has however identified an off-taker in the area or has interest in developing a Solar or Wind project in the area without an off-taker. Developer sees potential for future development in this area and intends commissioning feasibility studies and EIAs. Projects could reach COD within 5-7 years.

Installed (MWac)

The installed (MWac) is the total capacity of all PV, Wind, Batteries installed at the facility. This may be different from the grid capacity required.

Contracted (MWac)

The contracted (MWac) that is required to be connected to the grid. The plant installed capacity considered.

Example

For example a facility could consist 100MW PV plant and 50MW battery but only requires 120MW grid capacity.

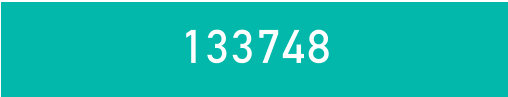
In this example 150MW is the installed (MWac) capacity and the 120MW is the connected capacity.

Results
Summary

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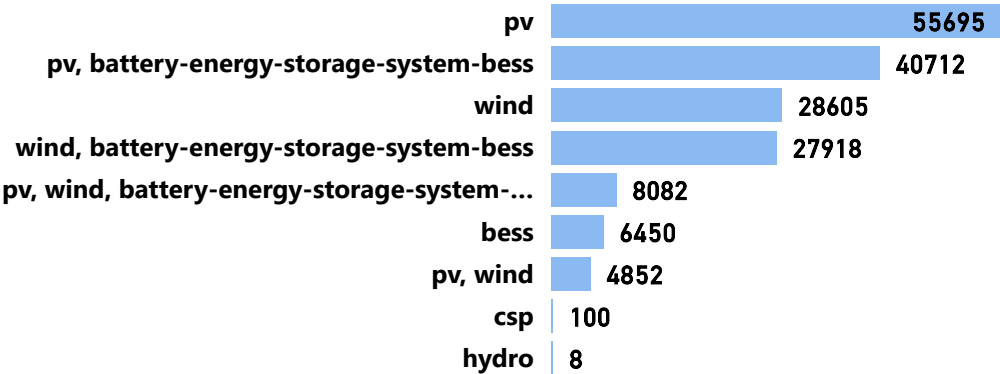
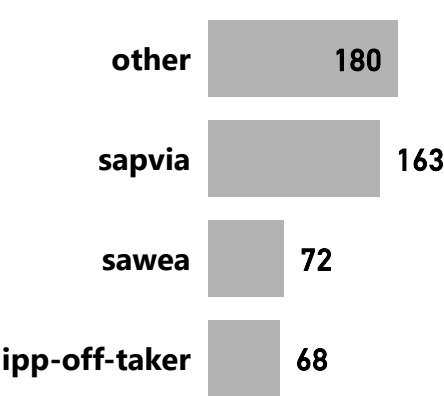
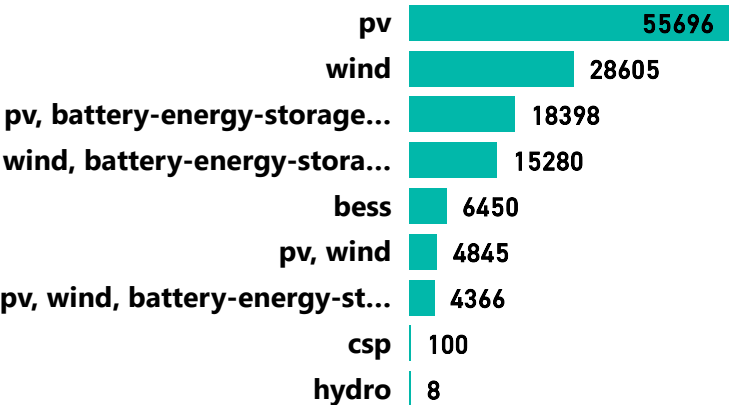
Contracted (MWac)



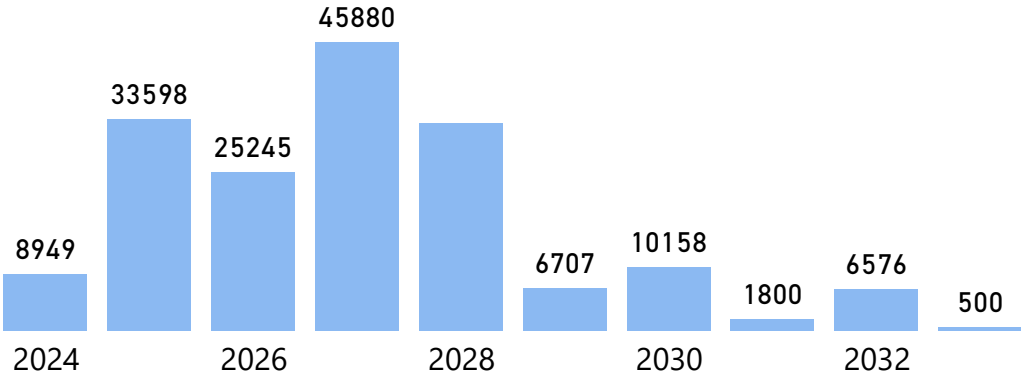
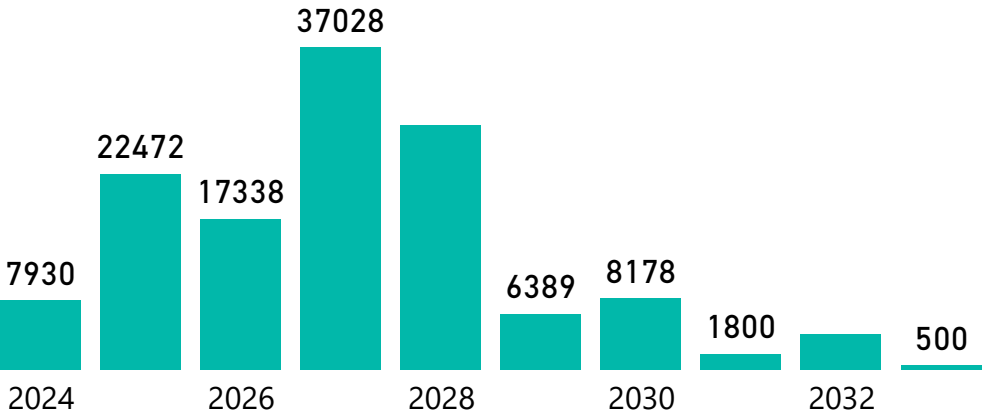
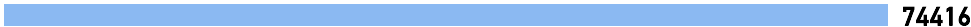
Contributions



Installed (MWac)



MWh of Battery Storage



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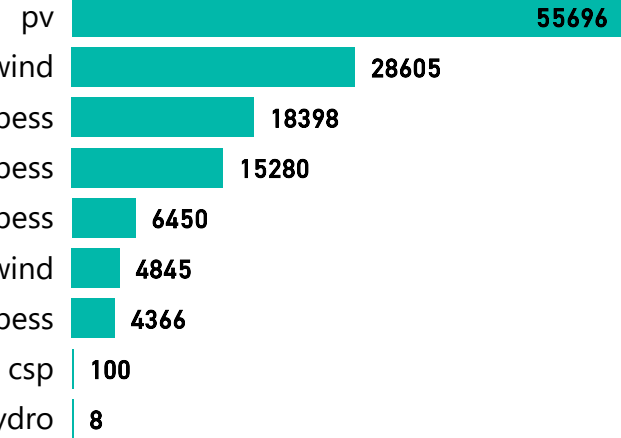


Contracted vs Installed

Contracted - grid capacity required and
Installed - total plant capacity

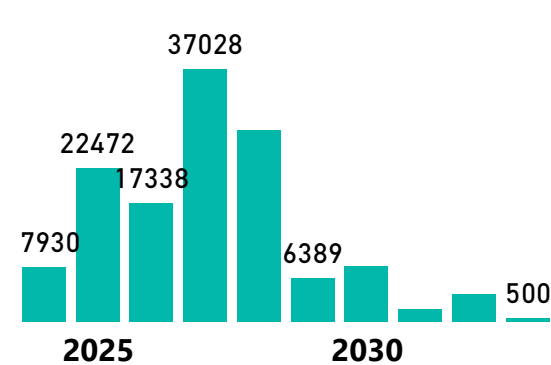
Contributions

483



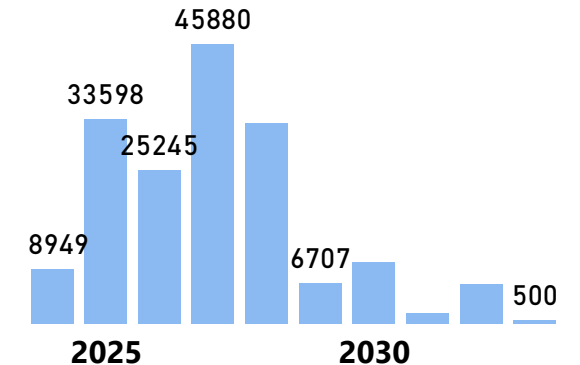
Contracted (MWac)

133748



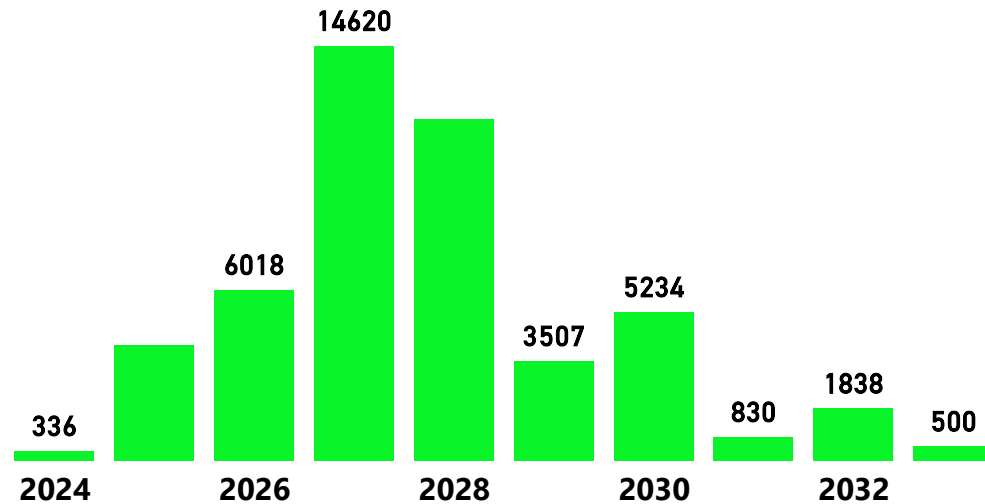
Installed (MWac)

172422

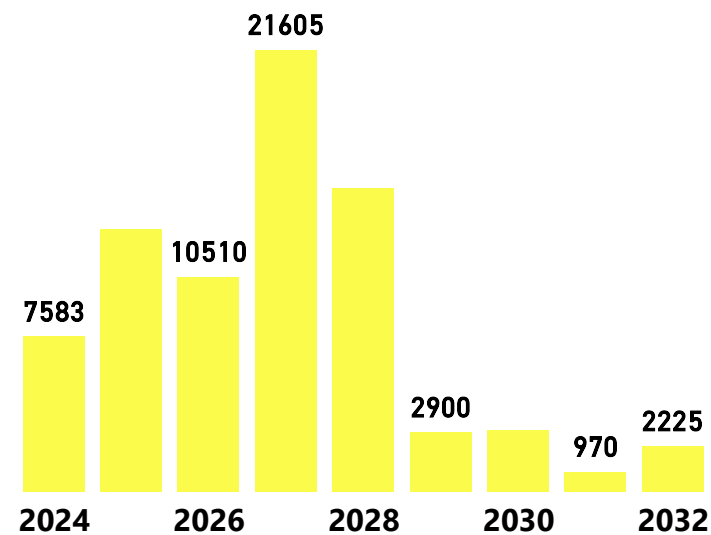


Technology

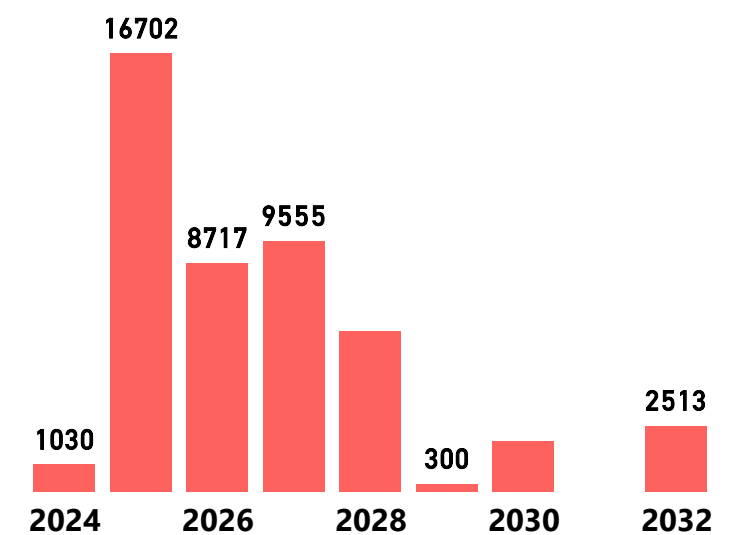
Wind (MWac)



PV (MWac)



Battery (MWac)



Results Contracted (MWac)

133748

2024 (July) South African Renewable Energy Grid Survey



Installed (MWac)

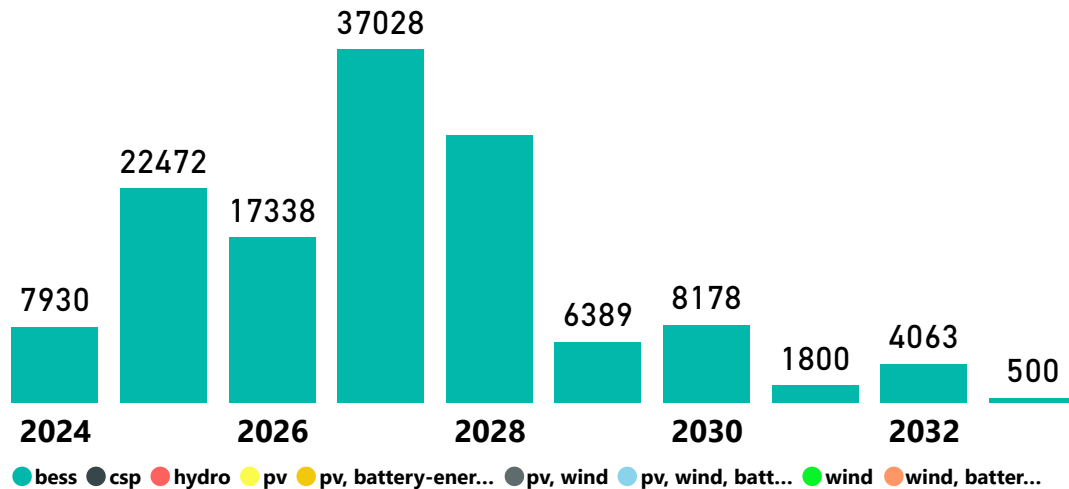
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Number of contributions

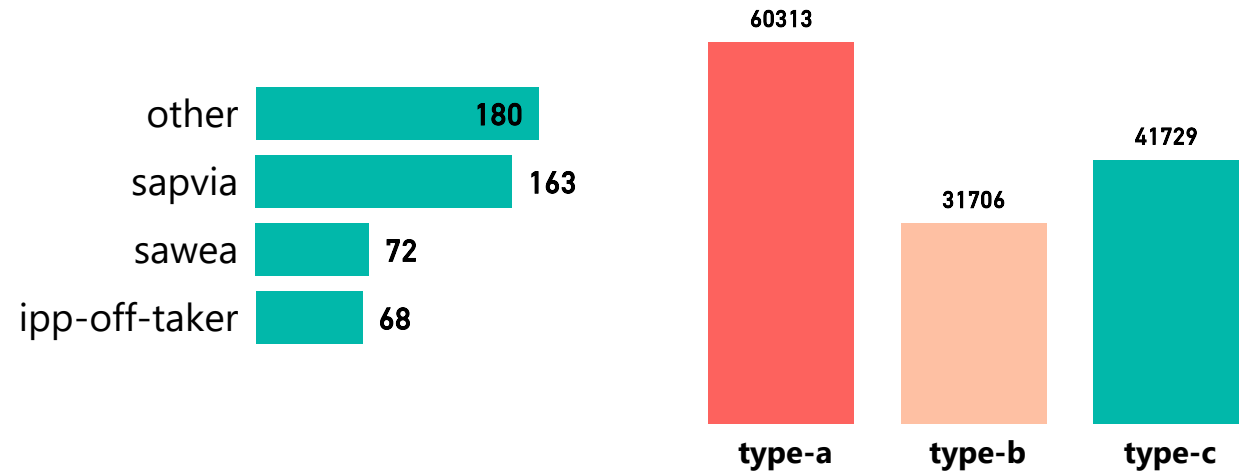
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- type-a
- type-b
- type-c

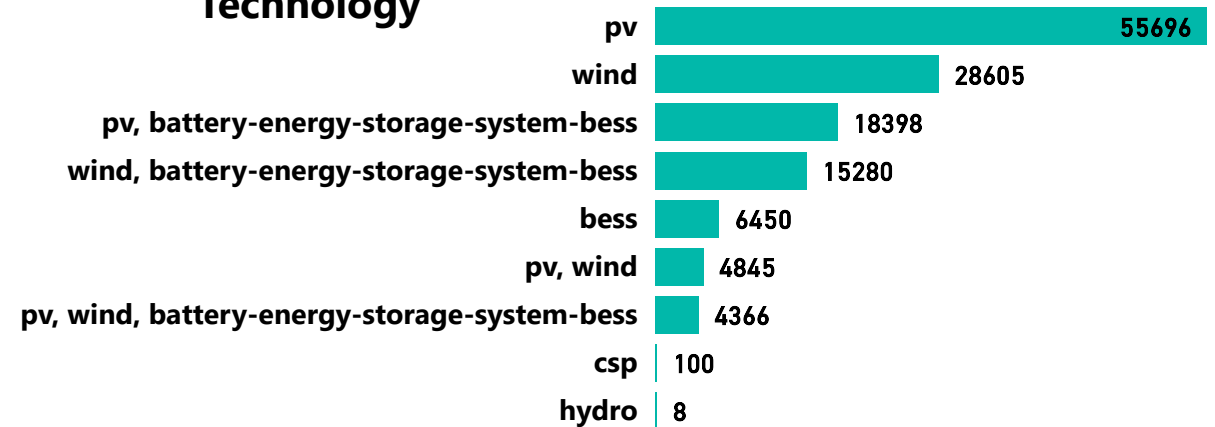
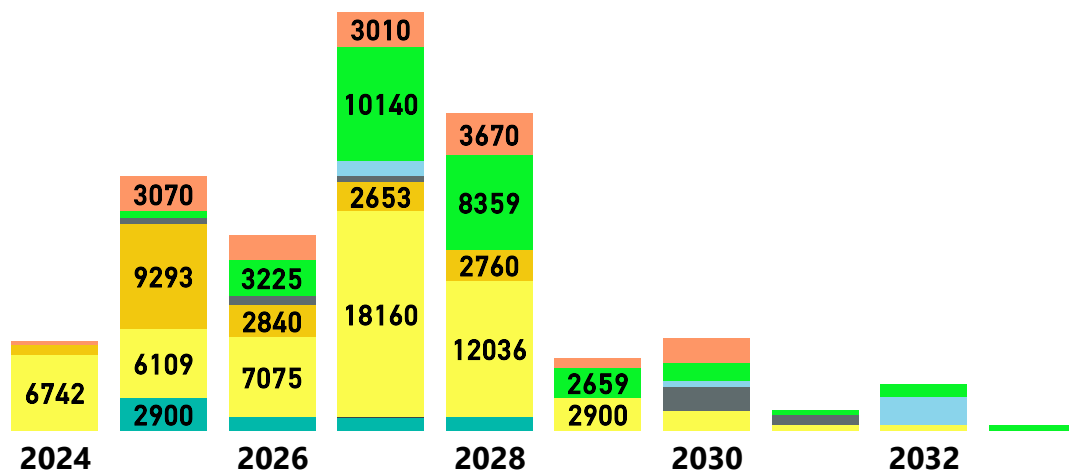
Contracted (MWac) Annual build



Project Status



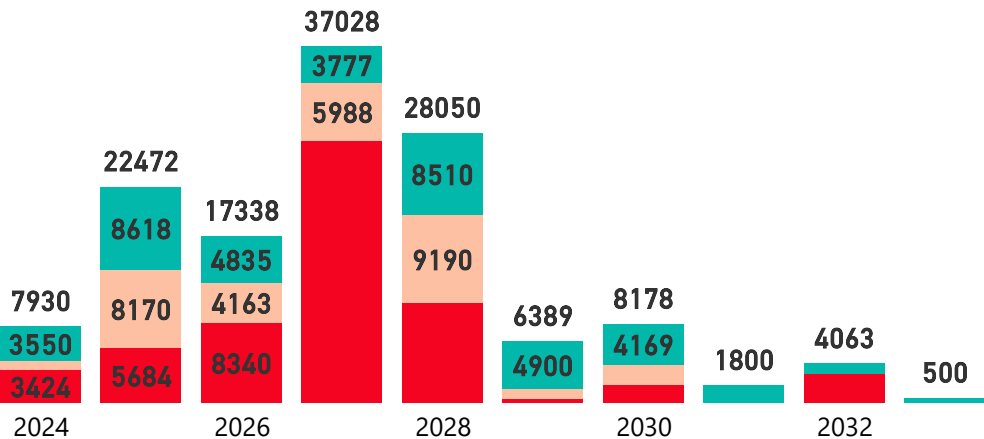
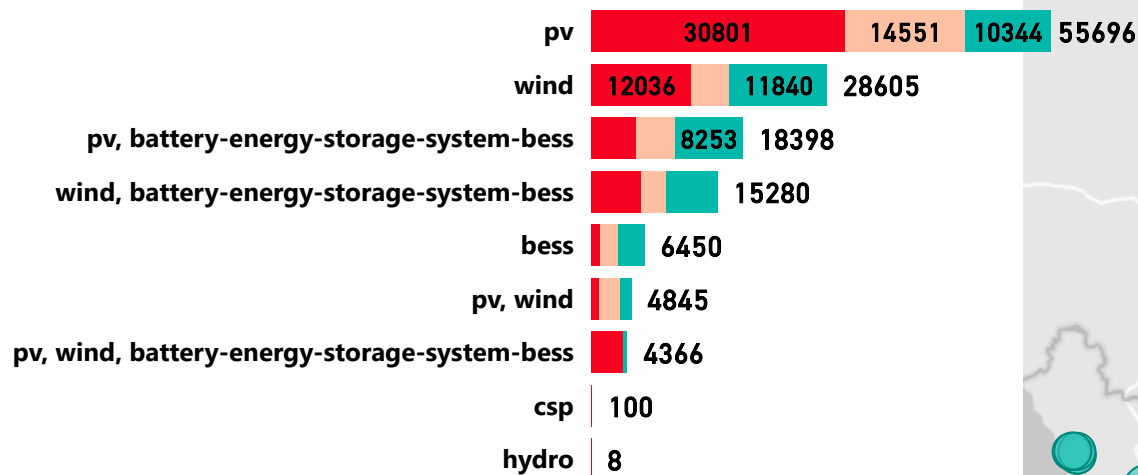
Technology



Project Type / Status

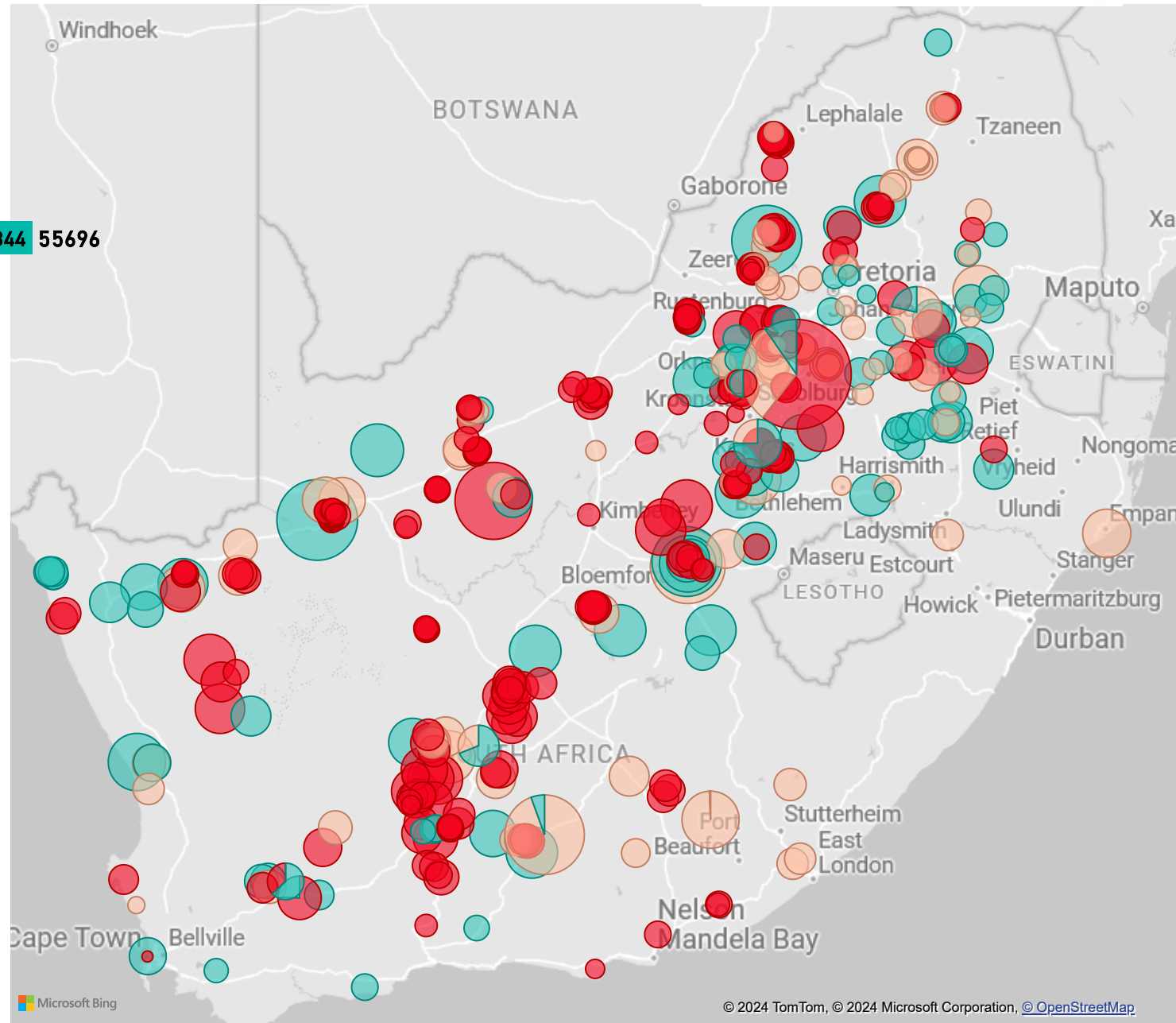
133748

- type-a
- type-b
- type-c
- current-application
- eia-approved
- future-application

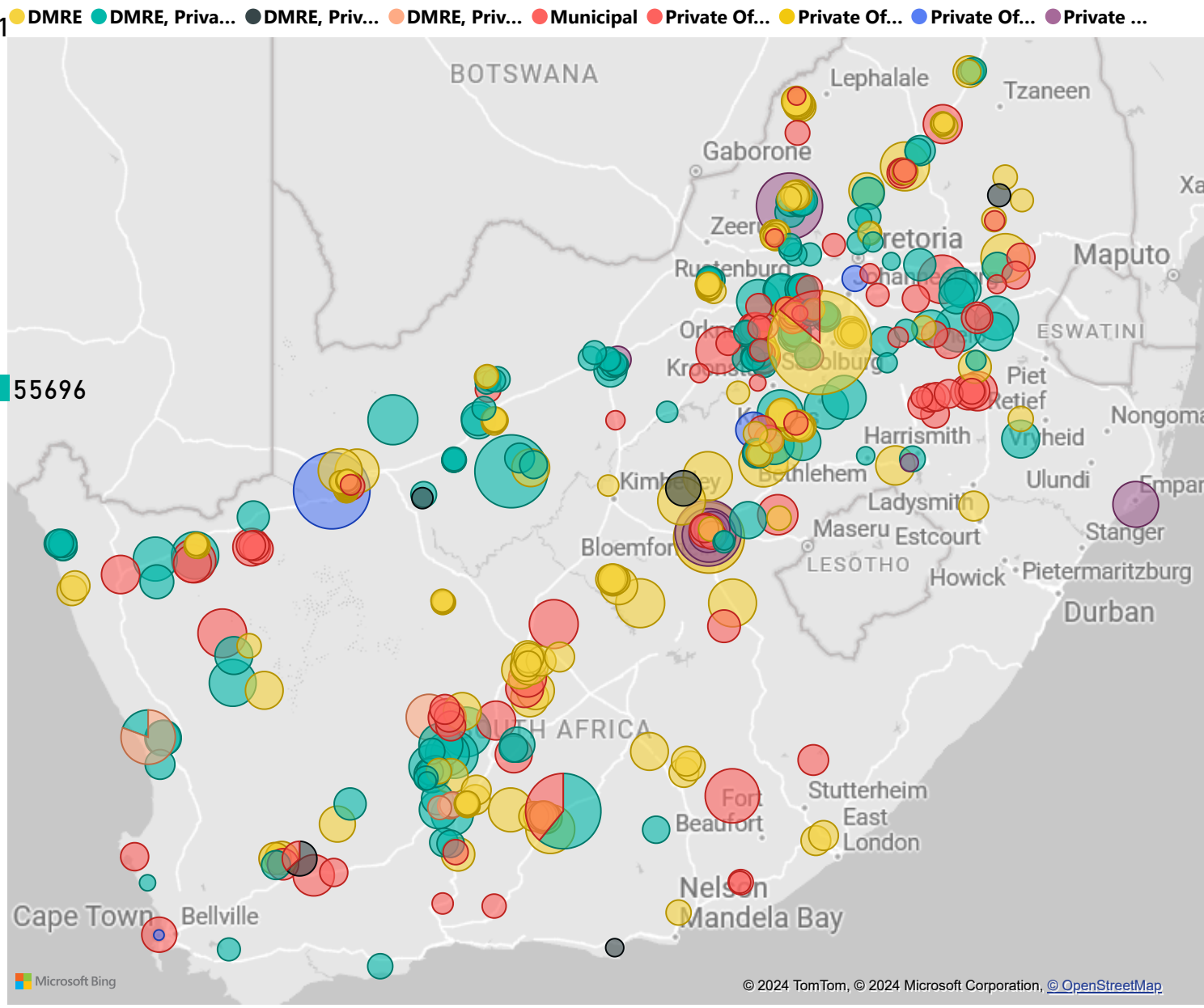
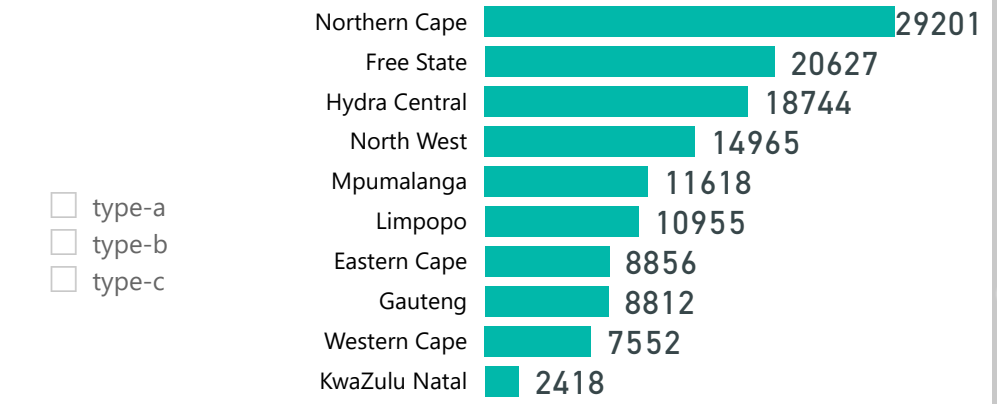
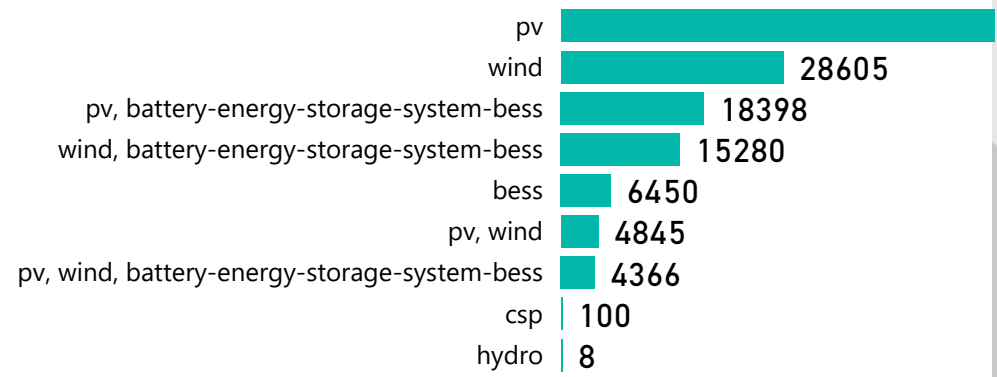
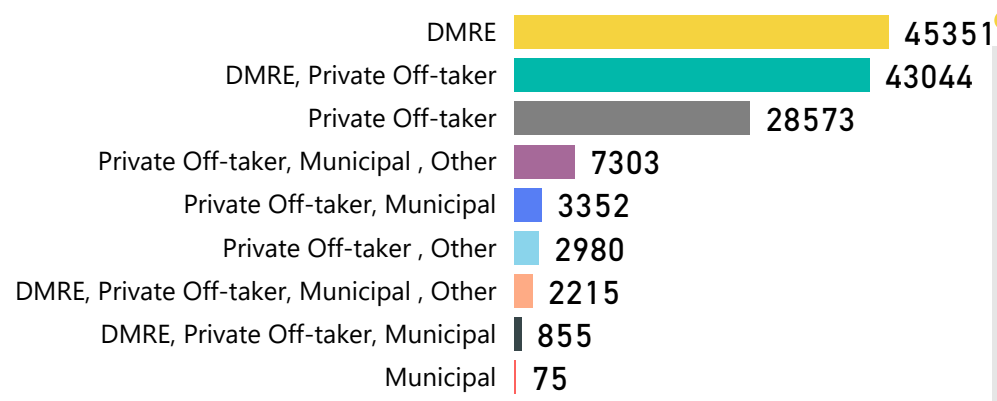


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type-a type-b type-c



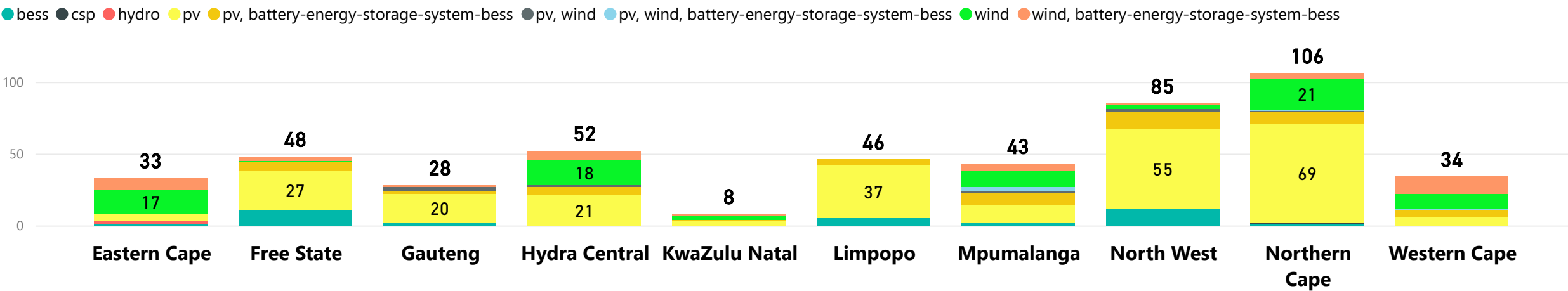
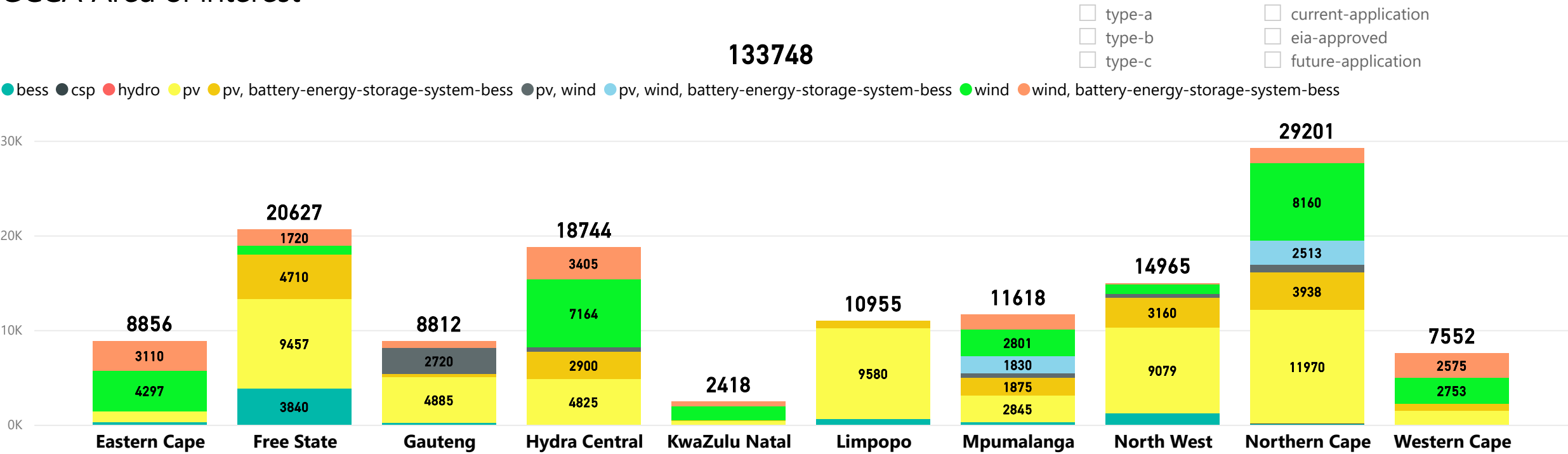
DMRE vs Private (MWac) 2024 (July) South African Renewable Energy Grid Survey

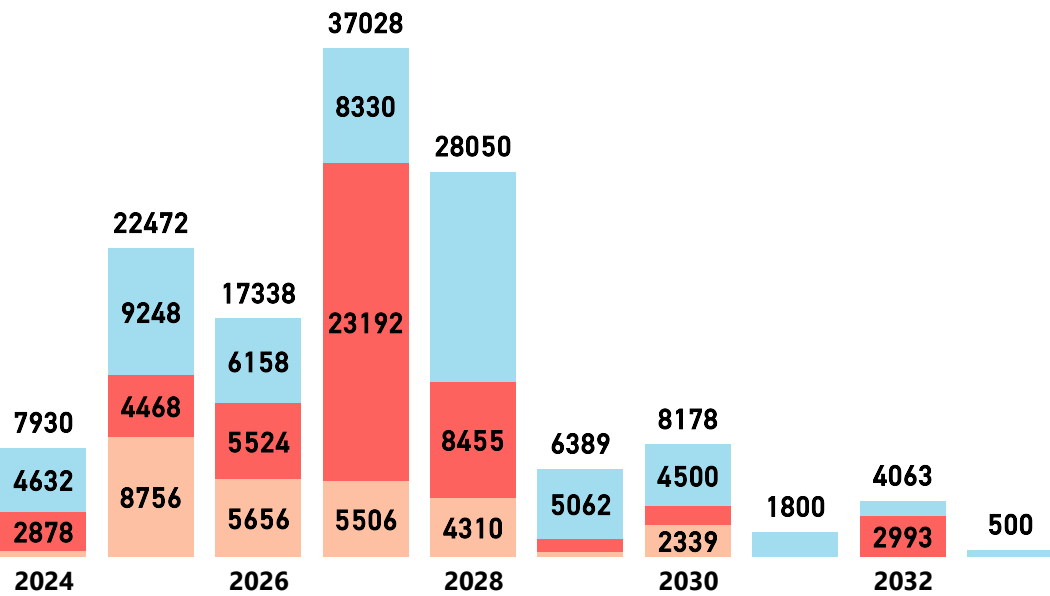
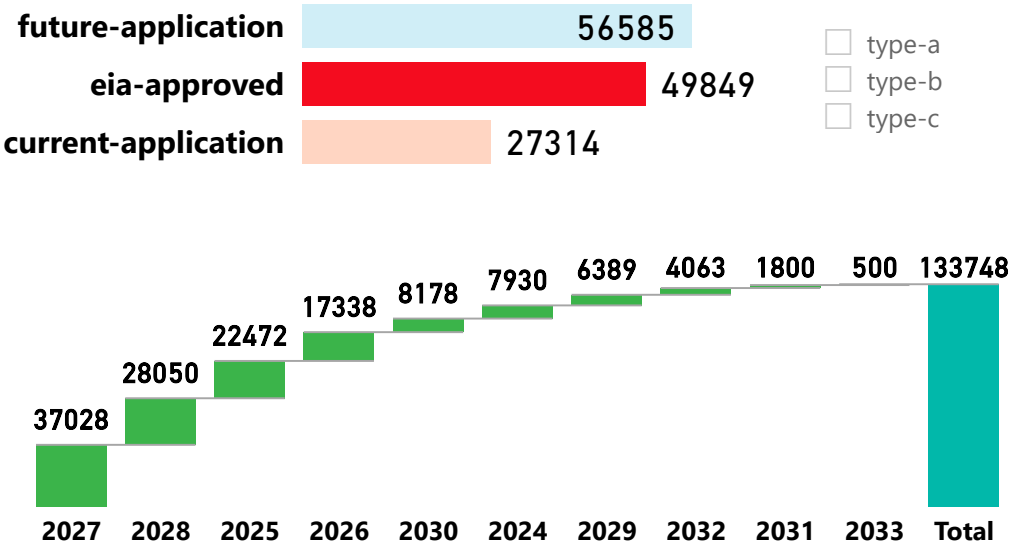


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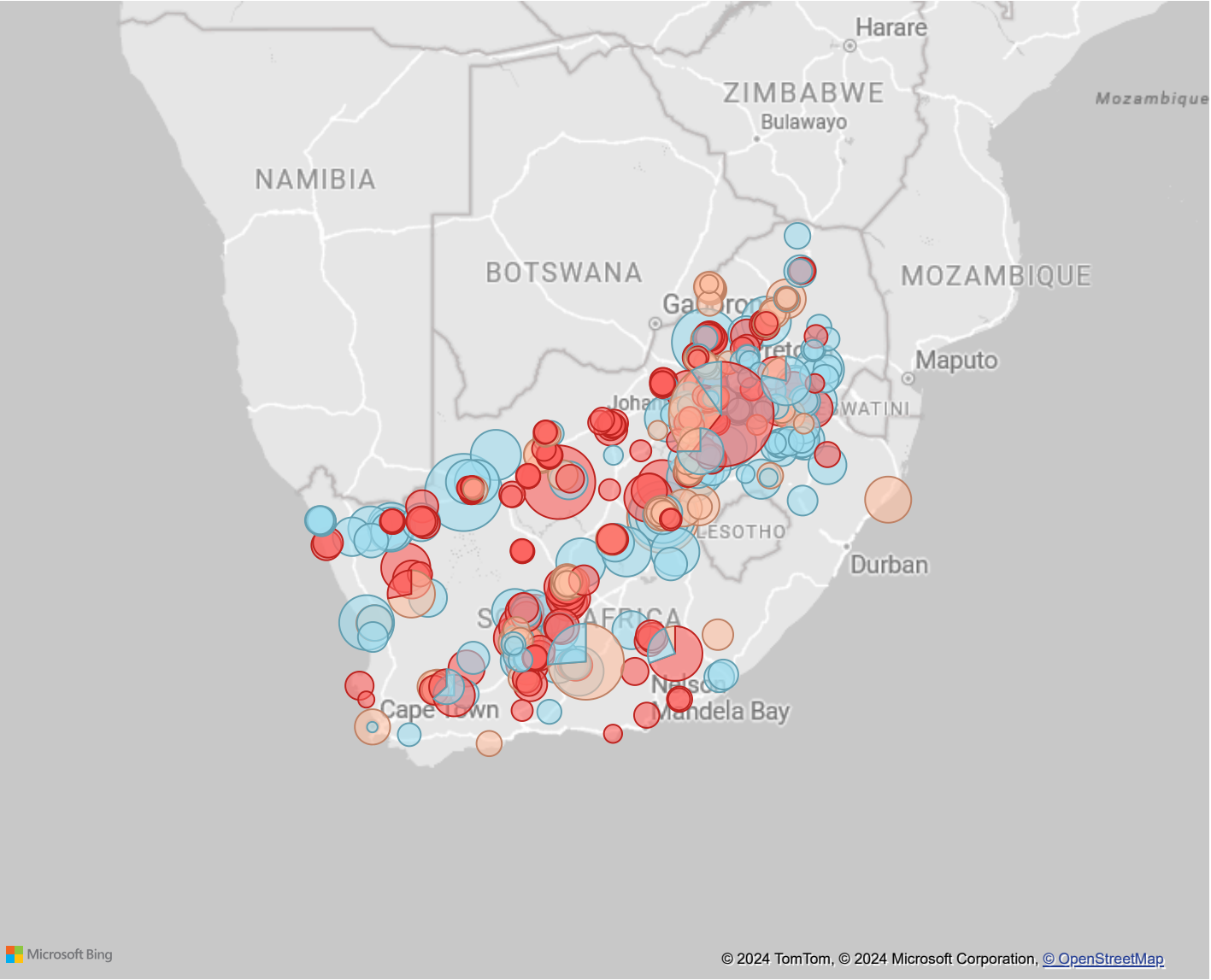


GCCA Area of interest



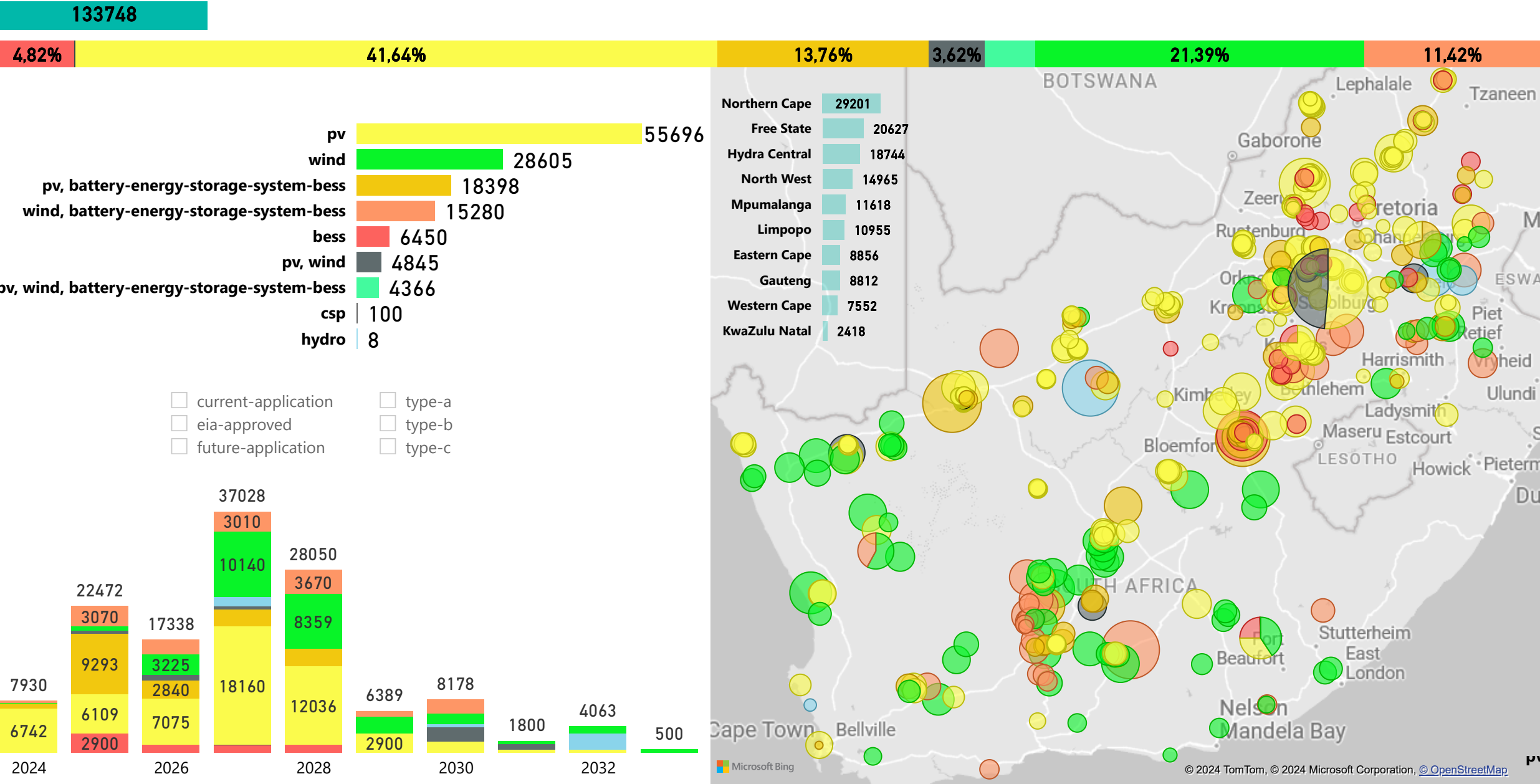


current-application eia-approved future-application



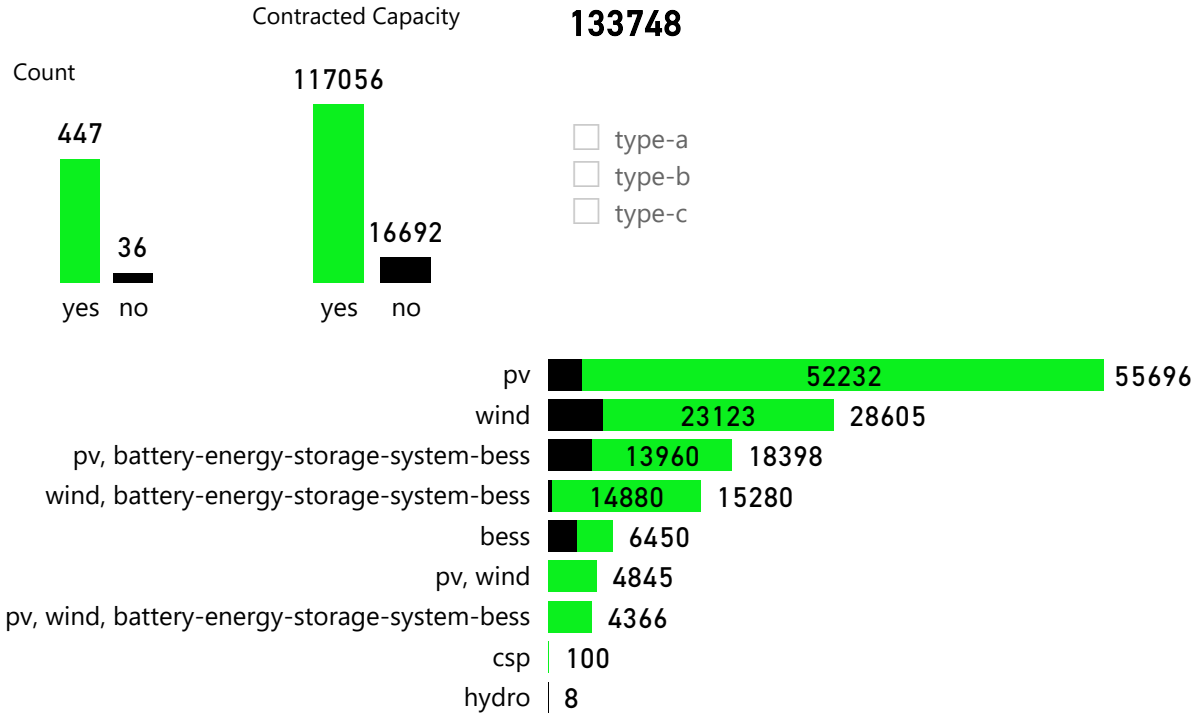
Technology (MWac) 2024 (July) South African Renewable Energy Grid Survey

● bess ● csp ● hydro ● pv ● pv, battery-energy-storage-system-bess ● pv, wind ● pv, wind, battery-energy-storage-system-bess ● wind ● wind, battery-energy-storage-system-bess

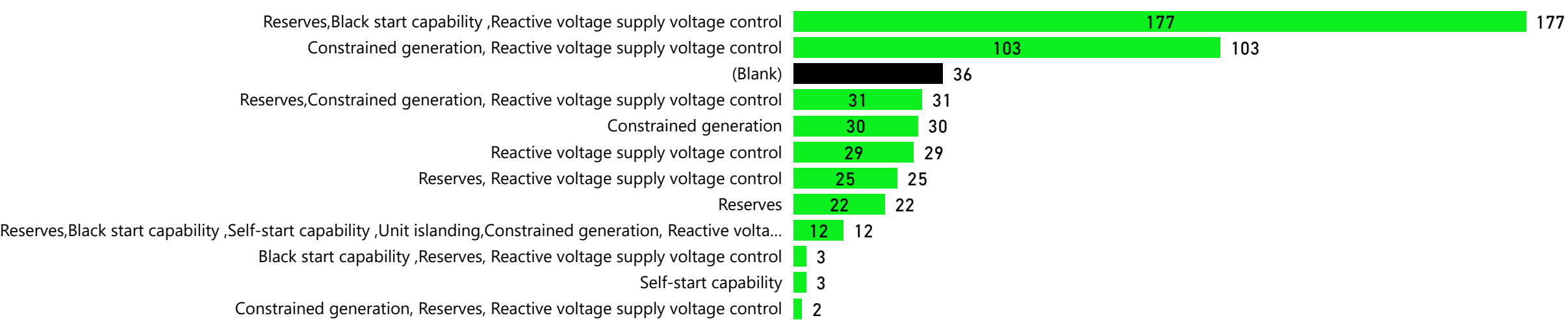
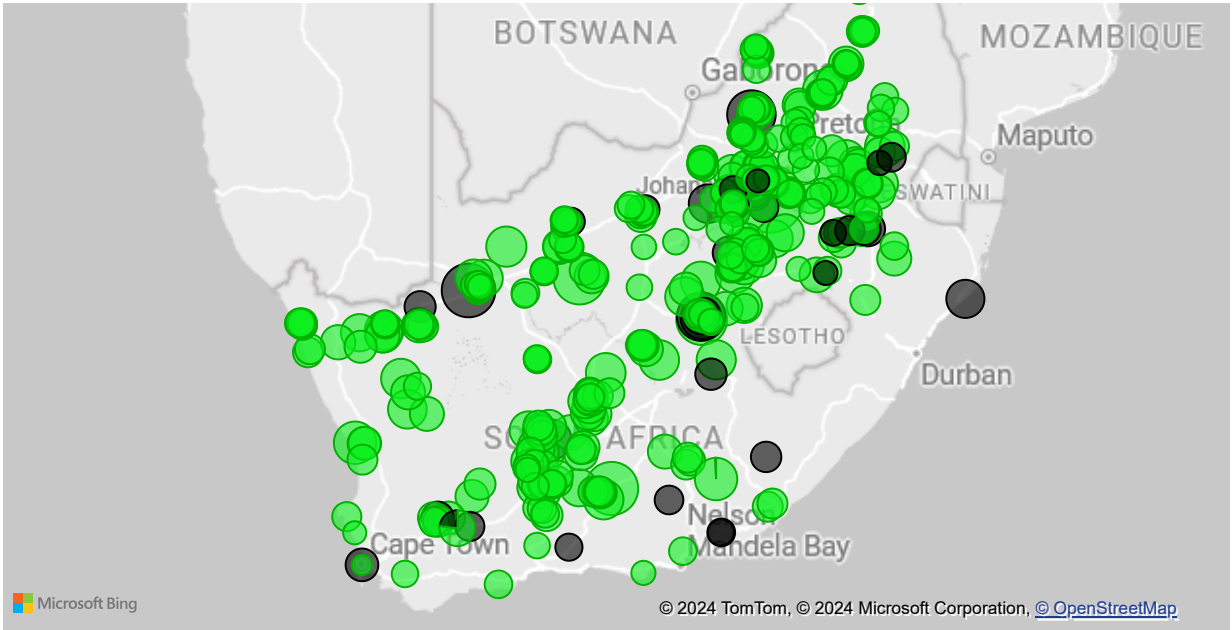


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Ancillary Services (Yes /No) MWac



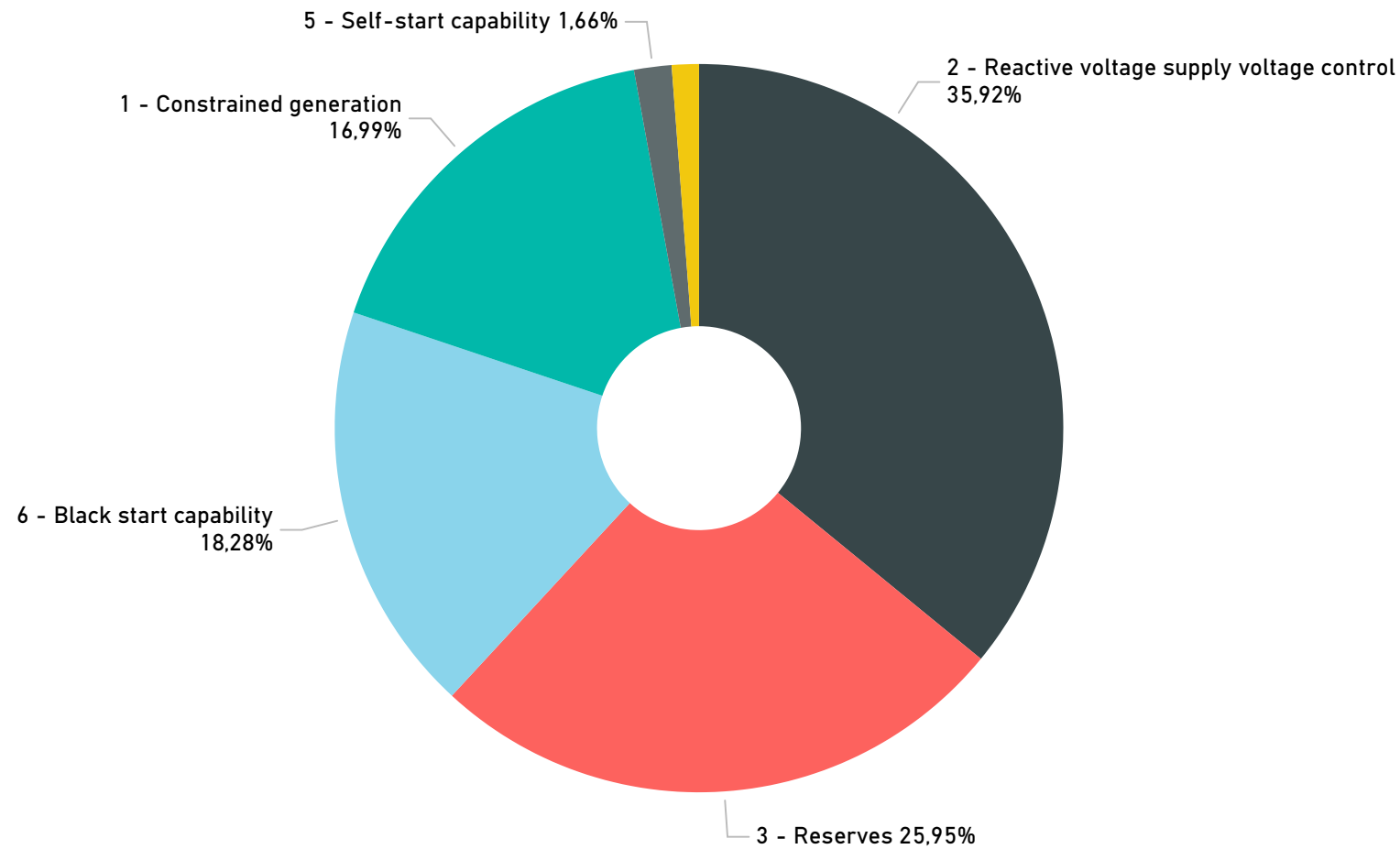
7. Are you willing to incorporate ... ● no ● yes



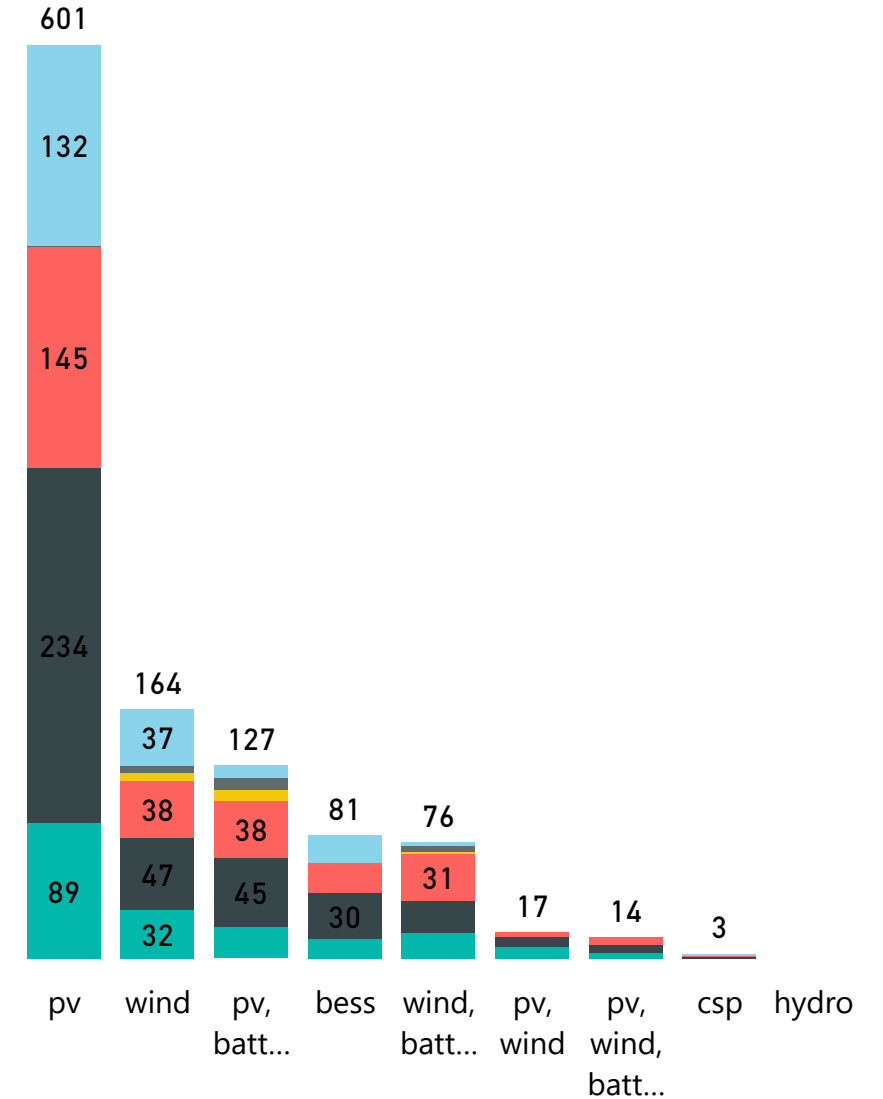
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Ancillary Services Category

Attribute ● 2 - Reactive voltage supply volt... ● 3 - Reserves ● 6 - Black start capability ● 1 - Constrained generation ● 5 - Self-start capability ● 4 - Unit islanding

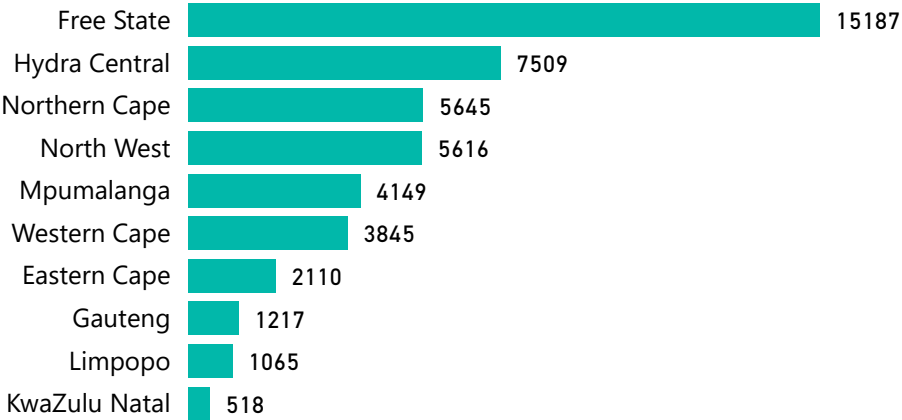
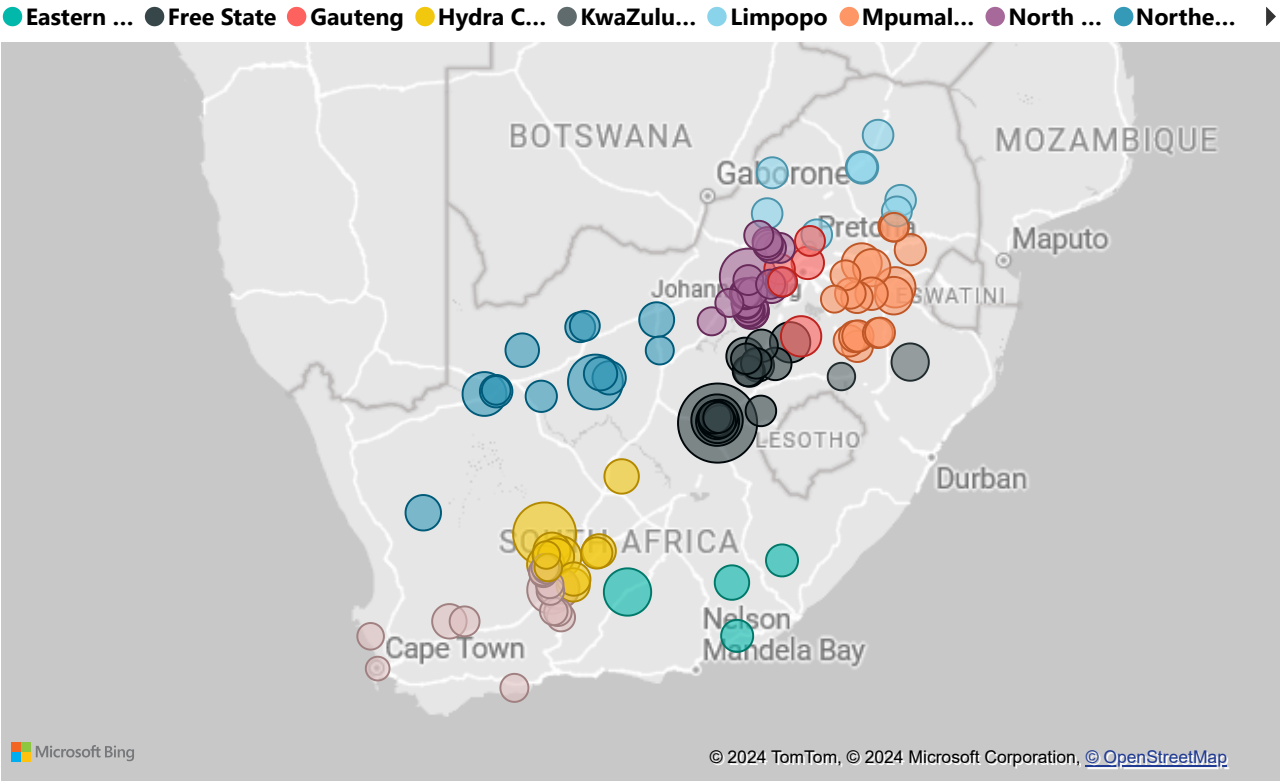
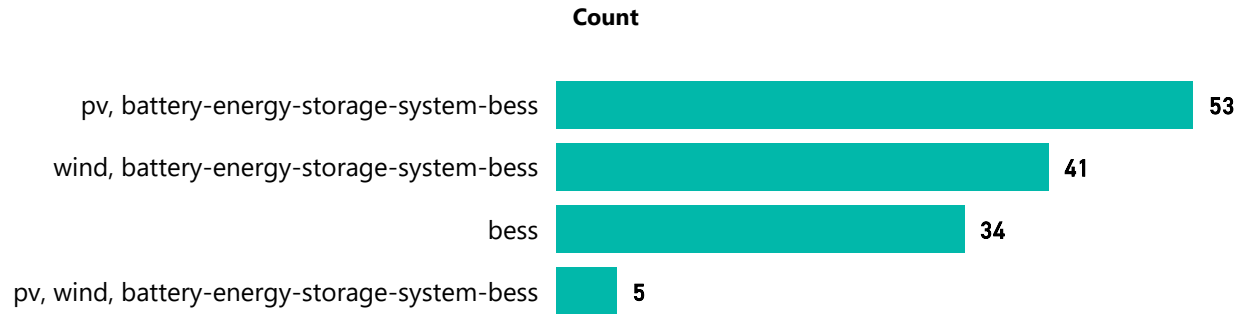
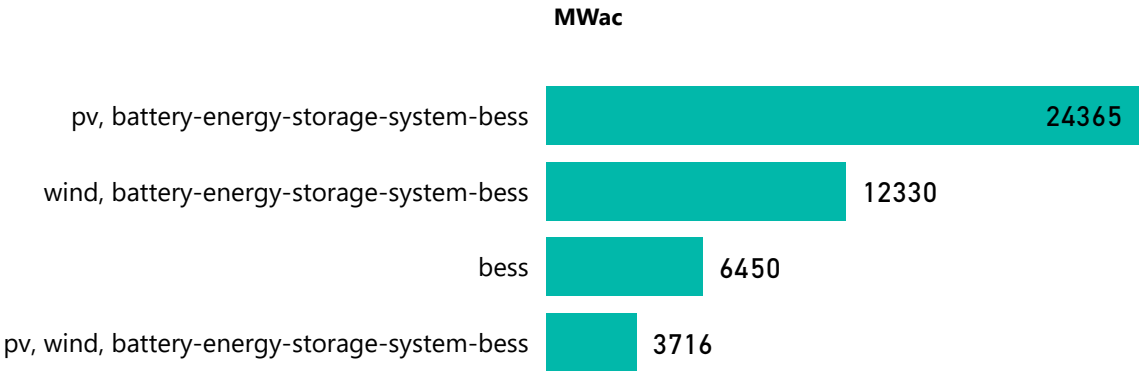
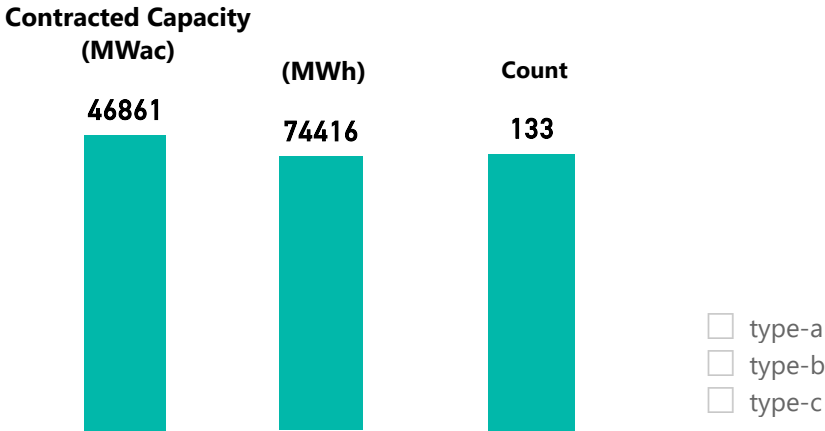


Generation Technology



Battery

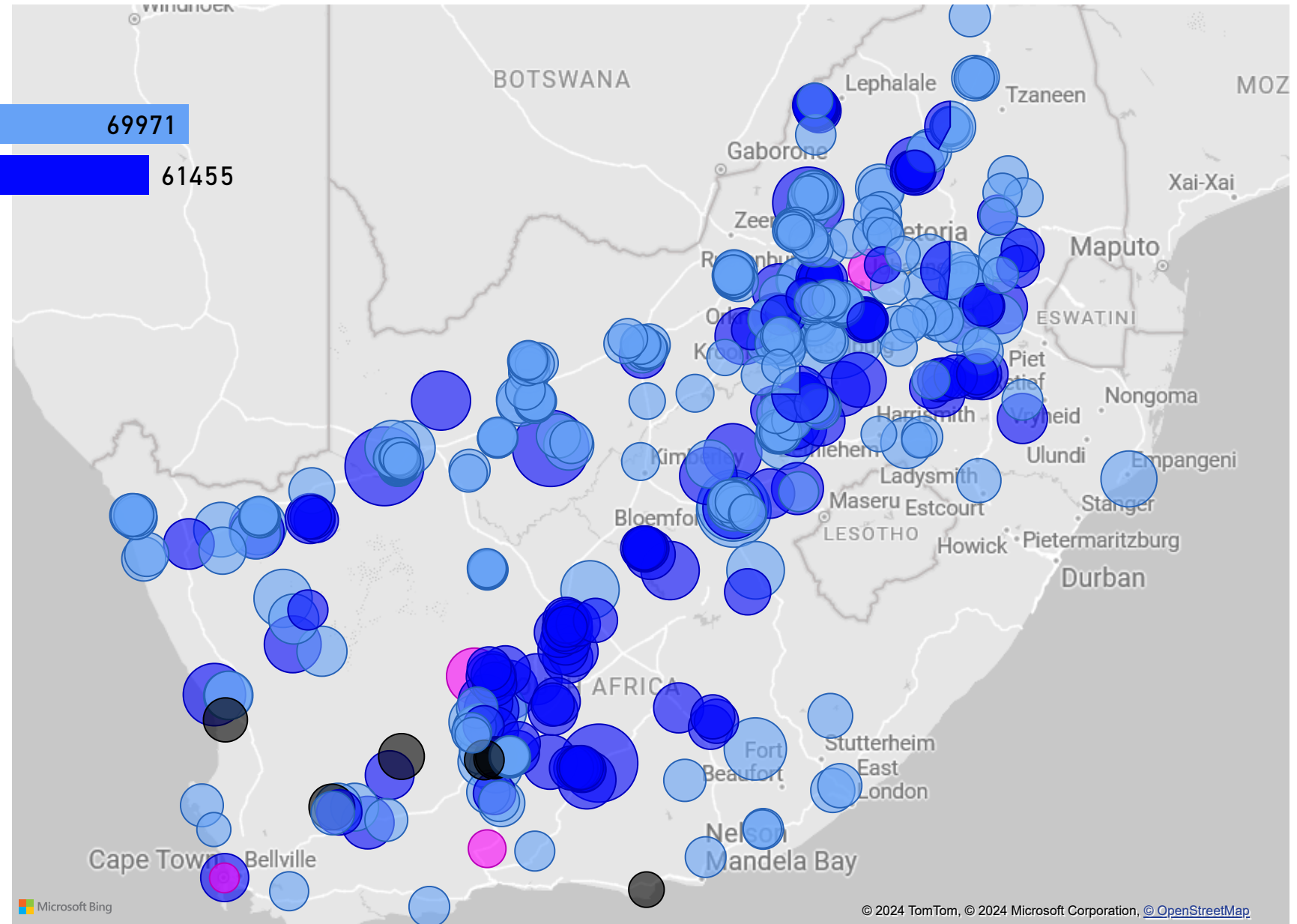
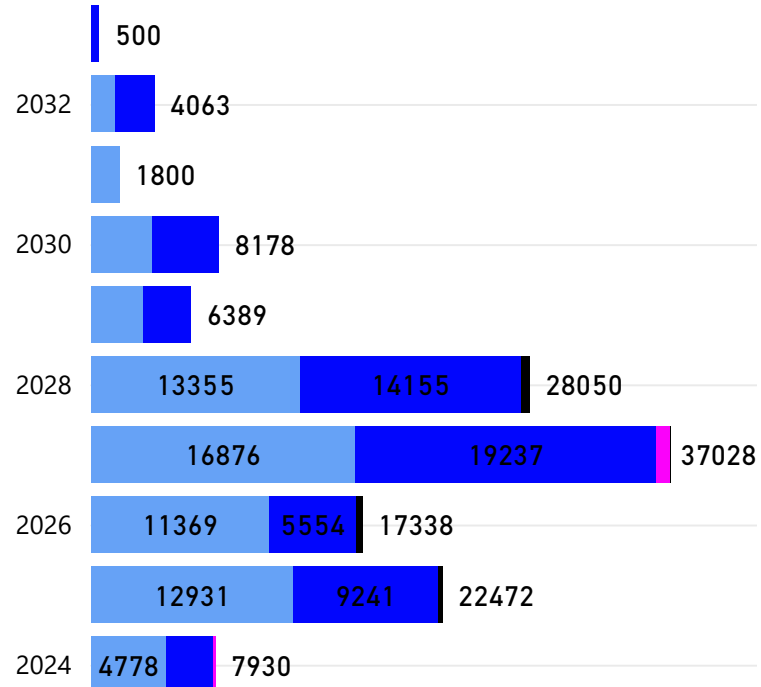
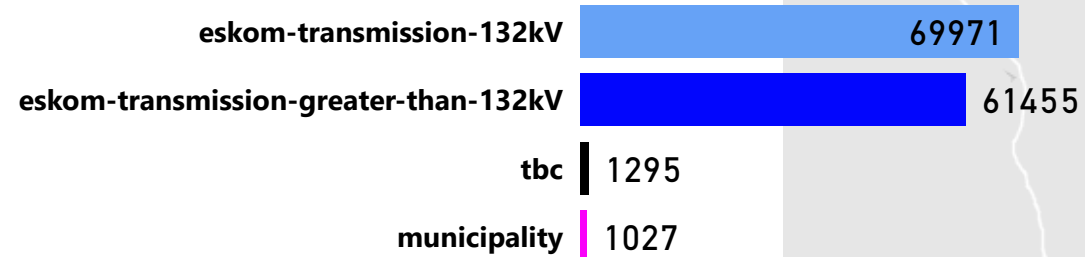
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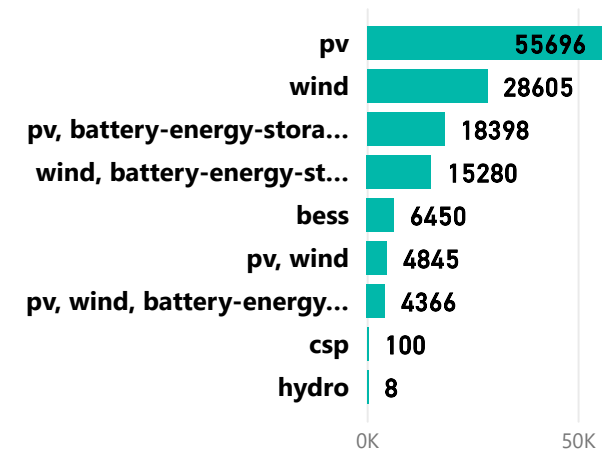
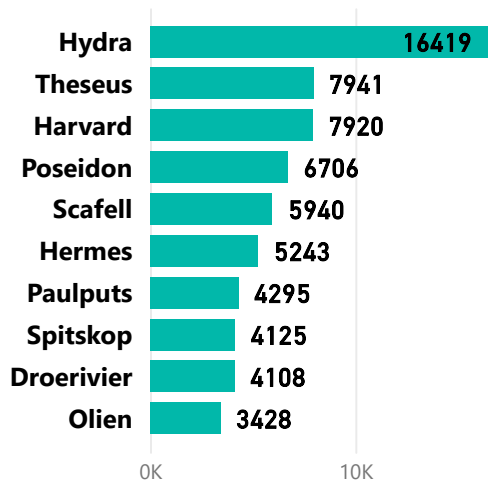
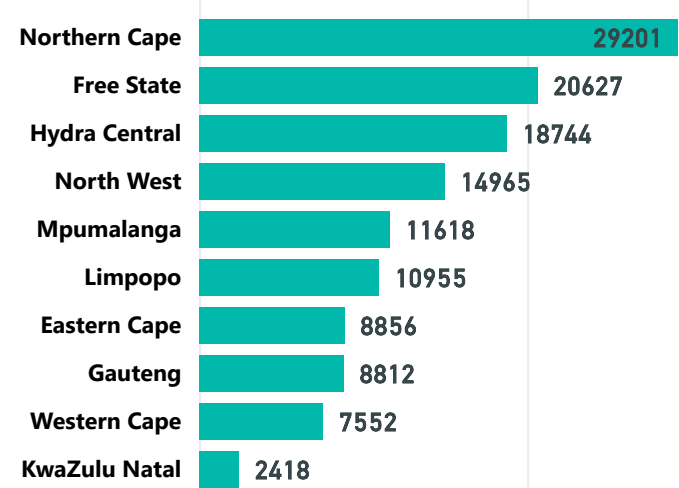
Access Tx,Dx, Own use & Munic

eskom-transmission-132kV eskom-transmission-greater-than-132kV municipality tbc

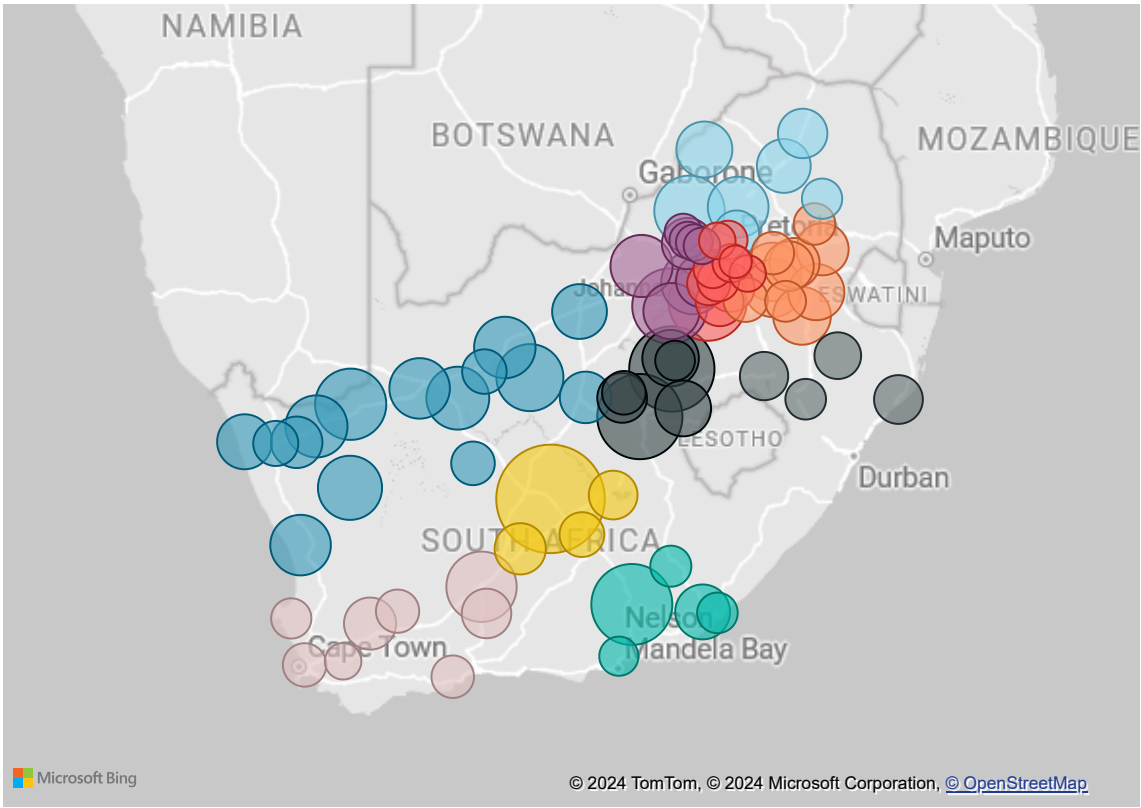


Grid Interest

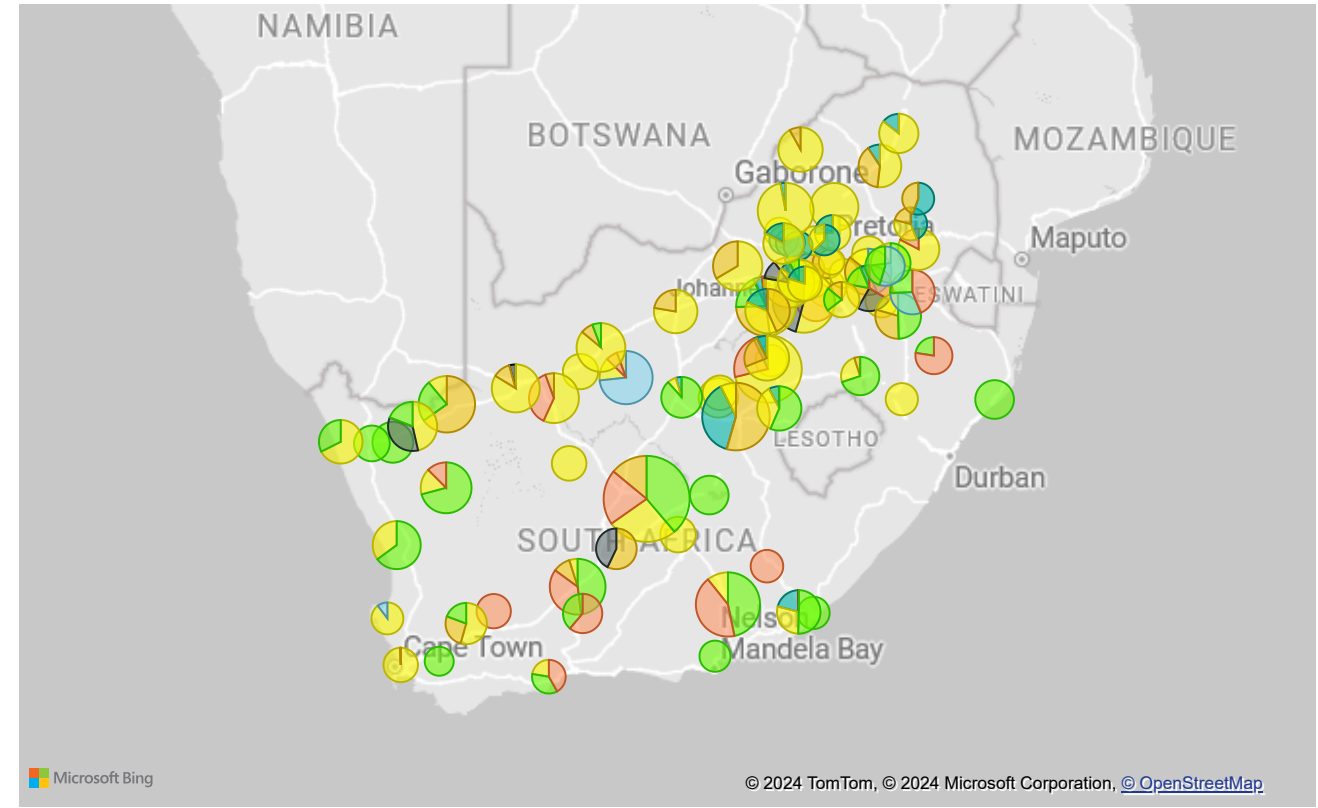
- type-a
- type-b
- type-c



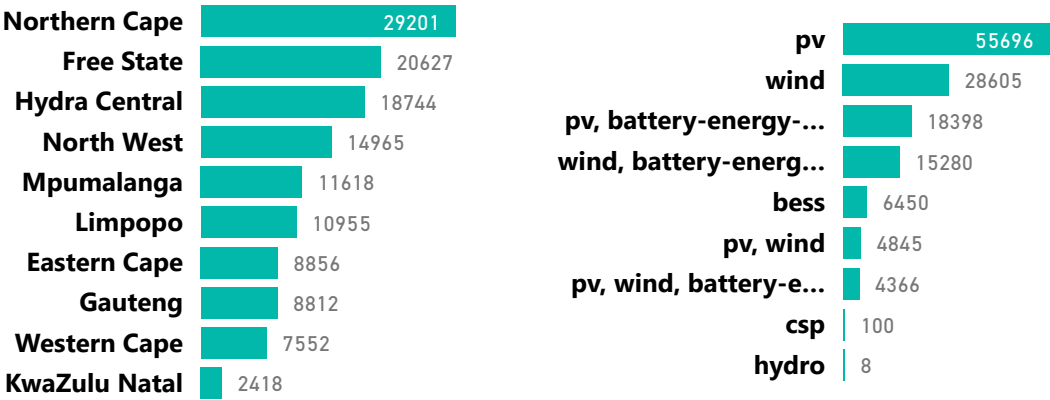
● Eastern ... ● Free State ● Gauteng ● Hydra C... ● KwaZulu ... ● Limpopo ● Mpumal...



● bess ● csp ● hydro ● pv ● pv, battery-ener... ● pv, wind ● pv, wind, batte... ● wind ● wind, batter...

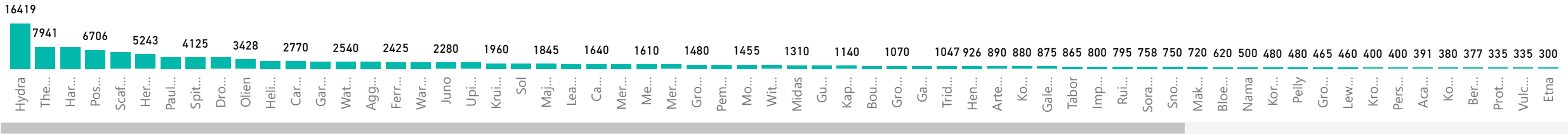


Grid at Substation

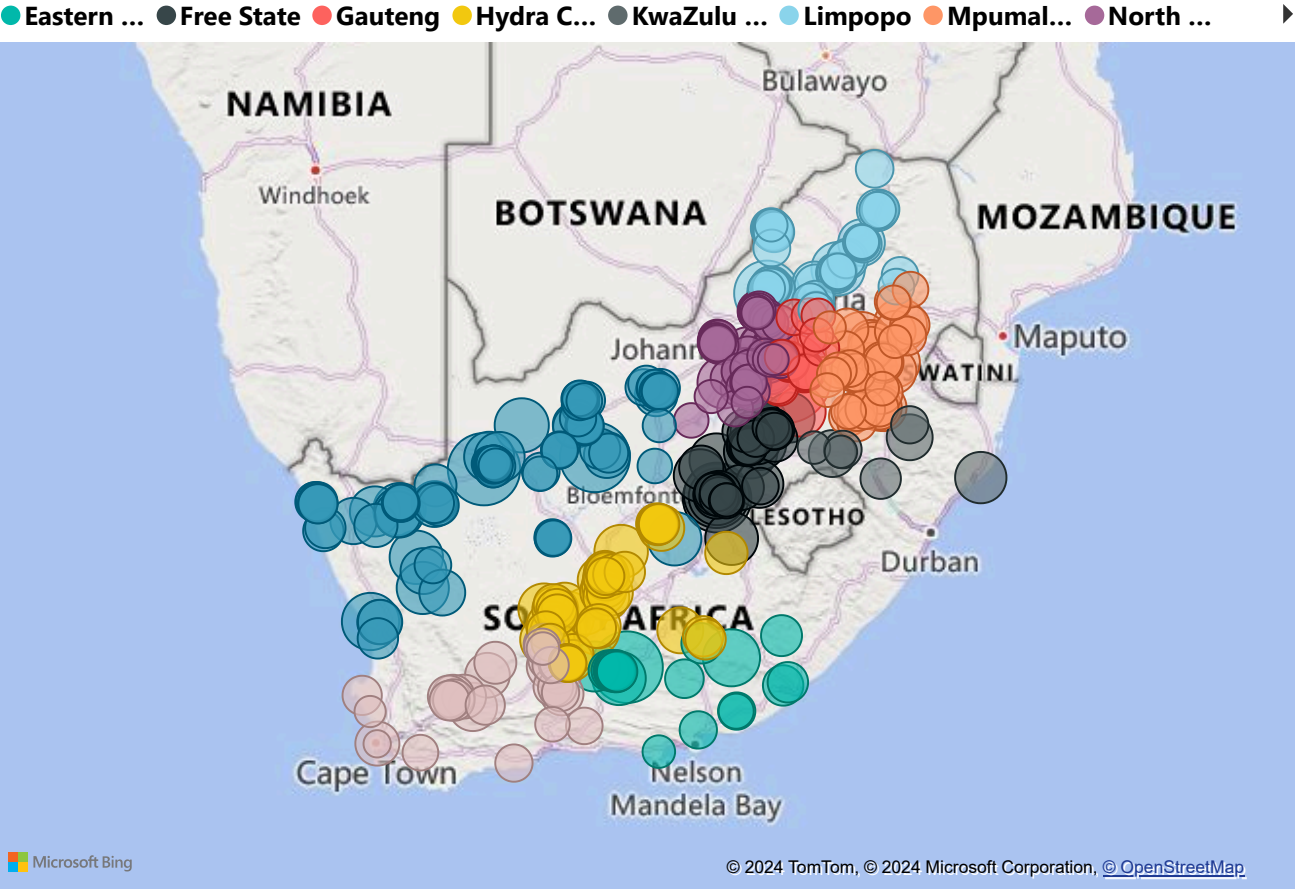
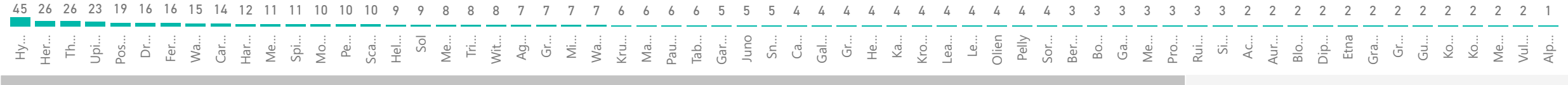


- ☐ type-a
- ☐ type-b
- ☐ type-c
- ☐ current-application
- ☐ eia-approved
- ☐ future-application

Contracted Capacity (MWac) by Substation



Count



Thank you
to all the survey contributors for
their time and valuable insights.

The End