

CECCO

P R O V I N C I A L

**BUILDING &
CONSTRUCTION**

TRADES COUNCIL OF ONTARIO



EPSCA
ELECTRICAL POWER SYSTEMS
CONSTRUCTION ASSOCIATION

Organized Sector Skilled Trade Demand/Supply Forecasting Program

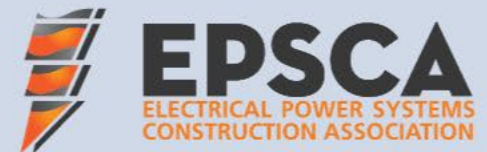
October 5th, 2023

Presentation by George Gritziotis for the
Ontario Construction Secretariat, AGM

Organized Sector: Strategic Workforce Planning System

Skilled Trade Demand / Supply Forecasting Program:

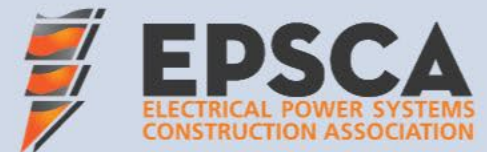
- This program is being established through a partnership with the Provincial Building and Construction Trades Council of Ontario, the Construction Employers Co-ordinating Council of Ontario, and the Electrical Power System Construction Association.
- Data-driven system that enables unions to show, not just tell, the major construction owners (buyers of construction services) and contractors that it can reliably supply skilled trades.
- Analyzes and forecasts unionized Building Trades' supply of skilled labour and compares that supply capacity with projected owner/contractor demand.



Ontario Spending/Investment Cycle

Billions of dollars are being focused on infrastructure, hospitals, nuclear energy, and housing, including:

- Metrolinx's GO Rail Expansion requires additional tracks, expanded stations, and electrification train control systems;
- Commuter rail and Toronto subway projects valued at \$16 billion;
- Ontario Power Generation and Bruce Power are refurbishing their Ontario Nuclear fleet and projects that encompass multi-year schedules and are valued at approximately \$26 billion;
- GM's first-in-Canada, all-electric vehicle manufacturing facility in Ingersoll; Volkswagen's EV battery plant in St. Thomas, boosting demand for industrial construction;
- Ontario housing starts are expected to range from 75,000-85,000 units this year and 80,000-90,000 by 2024, with immigration continuing to drive demand.



Organized Sector Capacity: Construction and Maintenance Activity

- Organized sector currently undertakes a significant amount of the work required by OPG, Bruce Power and Metrolinx.
- Available capacity will become far more challenging as the Infrastructure Ontario spend transitions to the post-secondary sector, hospitals, and long-term care centres.
- For buyers (owners) of construction and maintenance services, it is critical that there is available capacity to bid, plan, manage, build, and maintain the increasing requirement for public and private infrastructure.
- A critical part of this is the availability of skilled trades, qualified supervisors, project managers, and senior management.



ORGANIZED SECTOR DEMAND / SUPPLY FORECASTING PROGRAM FRAMEWORK

Objectives of the Demand/Supply Forecast Program:

- to identify skilled trade availability for major private and public sector construction and maintenance projects in Ontario.

DEMAND / SUPPLY PROGRAM Program Elements

Projects/Activities

Skilled Trade / Labour
Supply Tracking
System

- Skilled Trade Tracking System Development
- Supply Side Data Consolidation / Analytics

Major Project
Inventory / Investment
Demand Data

- Major Project Inventory
- Major project demand profile by structure type
- Prism/Spatial Economics

Major Project and
Investment Forecasting
Techniques

- Major Project Projection
- Demand / Supply Forecasting System Development

Sources of Skilled
Trades / Labour
Supply

- Union Hiring Halls
- Labour Mobility
- Immigration / TFW
- Apprenticeship Training Infrastructure
- Management/Supervisor/ Mentoring

Key Result Areas

KRA Projects

Enhanced Industry Capacity

Young People

- Tomorrow's Trades Program
- TDA Skilled Trade Awareness Campaigns

Apprenticeship /
Health and Safety

- Union Training Delivery Agents (TDA) apprenticeship and pre-apprenticeship programs
- Ontario Building Trades Health, Safety & Prevention Resource

Diversity, Equity,
Inclusion

- Ontario Building and Construction Tradeswomen (OBCT)

Advanced Career
and Workforce
Training

- Construction Training & Apprenticeship Ontario (CTAO)
- Ontario Building Trade Convention

- Monitor major projects.
- Forecast skilled trade requirements.
- Inform Owners (Buyers) scheduling.
- Attract new entrants to meet needs.
- Manage skilled trade demand.
- Train new apprentices based on need.
- Maintain required skill levels (clean technologies).
- Competitiveness of organized construction.
- Improve regional support.

Proposed Approach

Phase 1: Major Project Inventory

- Major Project Inventory Database Management System
- OPG and Bruce Power (early adopters)

Phase 2: Scale Major Project Inventory

- Expand Major Project Inventory Database Management System
- Infrastructure Ontario, Sarnia, Mining etc.

Phase 3: Demand Profiles

- Establish demand profiles by structure types and value of the projects (coefficients)

Phase 4: Skilled Trades/Labour Supply

- Engage TDAs (hiring halls) at local levels to provide skilled trades supply information

Phase 5: Provincial Economic and Investment Outlook

- Incorporate an economic and investment outlook

Demand Supply Forecast: Owner/Contractor Data

Quarterly Forecast – Each Owner/Contractor provides a labour demand profile for each of their projects:

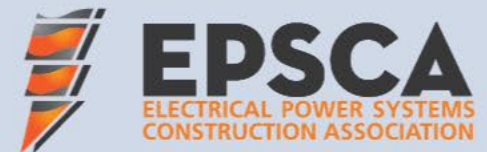
- By Union
- Required Qualifications
- Required Certifications
- Apprentice Ratios

Location – The Projects will be identified regionally, using a similar breakdown that BuildForce uses:

- GTA
- Eastern Ontario
- Southwestern Ontario
- Central Ontario
- Northern Ontario

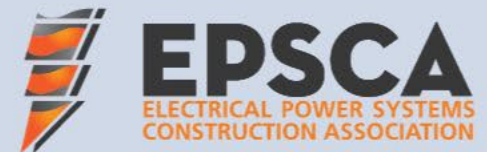
Project Status – a category that can be used to identify if a Project is:

- Funding Released
- Pre-planning Phase
- Design Phase



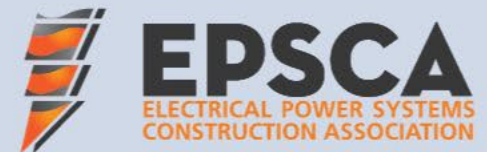
Demand Supply Forecast: Demographic Union Data

- **Member (Index Number)** – a randomly generated unique identifier for each member so the data can be updated on a quarterly basis;
- **Location (Postal Code)** – First three digits of a postal code or some other location identifier;
- **Status** – a status category that can be used to identify active members working or available for dispatch. Each Local may have a unique set of status classifications (e.g. active, inactive, Out-travel card holder, In-travel card holder, retired, security level, expiry date etc)
- **Trade/Craft** – as required, some Locals may include multiple trades;
- **Qualification** - a field that can differentiate between members who are journeypersons, apprentices or other classifications used by the Local (i.e. journeyperson; apprentice + level, pre-apprentice, helper, etc.)
- **Other Certifications** - any other relevant certifications or qualifications which impact potential dispatch. This may include security clearance, and specialized training;
- **Age** – this field can include age, date of birth, or birth year. This field will be used to estimate retirements and age-related attrition;
- **Year Joined** – The year in which the member joined the union;
- **Other** - based on discussion with individual locals. The data collection template may also be augmented to include specific health and safety or other relevant certifications, such as Nuclear Qualified Worker (NQW).



Demand/Supply Forecast Delivery Features

- Quarterly updates based on significant investment impacts;
- Determine key indicators that are unique to the client:
 - TDAs/Local Unions
 - Owners
 - Contractors
- Web-based analytics and delivery that allows a client to respond to their unique business needs;
- The Portal website is secure for unique client access.



Program Oversight and Administration

Ontario Tripartite Labour Resource Council (OTLRC) – Program Oversight

- Oversee the design, development, and implementation of the program.

TDA /Local Union Affiliates

- Share skilled trade information, review and provide feedback on the demand data and assess local current skilled trade worker availability, and inflow of apprentices required to meet demand.

Employer / Labour Regional Network

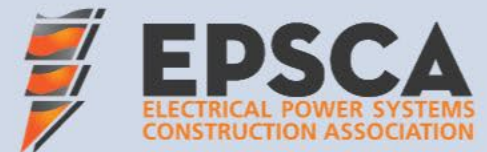
- Provide information and become the focal point for skilled trades in their regional area.

Provincial Owners

- Provide reliable demand information on the start and end dates of major projects, as well as skilled trade requirements for these same projects.

Technical Experts

- Technical experts (OCS, BuildForce) to provide advice on the technical aspect of the Demand/Supply Model.



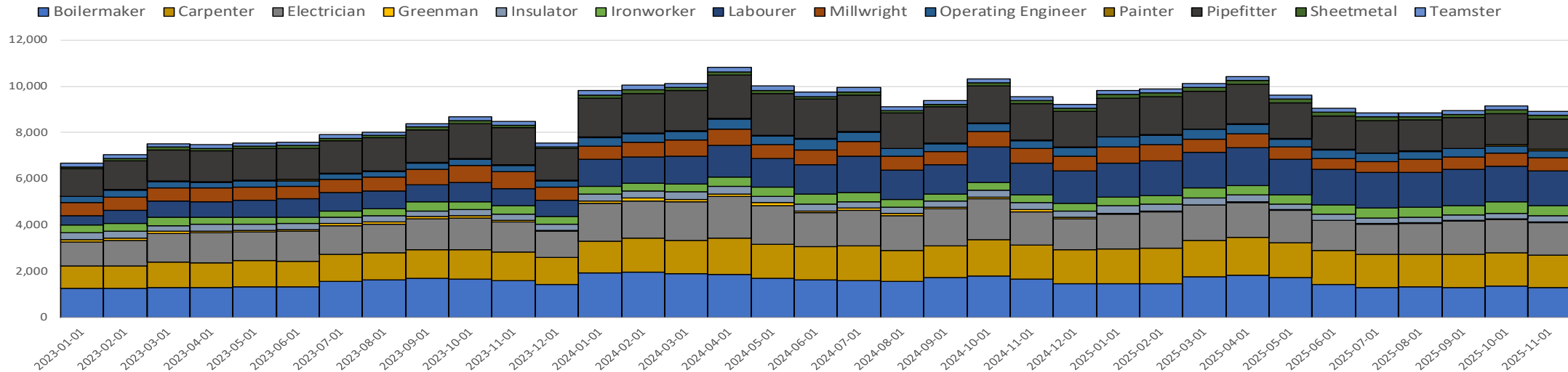
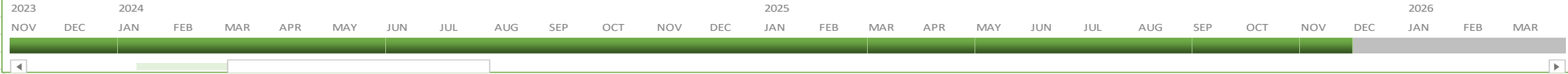
Demand versus Supply Data Overlap File

Demand Supply Projects

Attribute

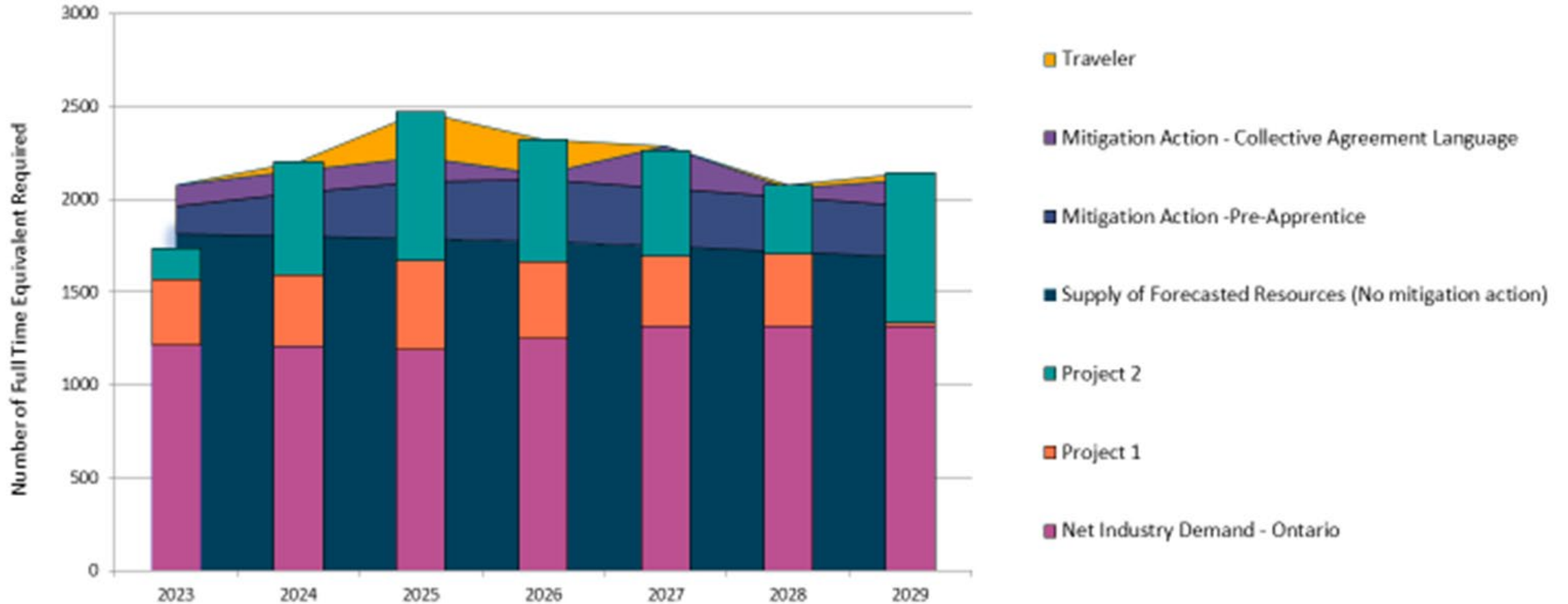
Jan 2023 - Nov 2025

MONTHS



Peak Values	2023			2024				2025				2026				2027				2028				2029			
Trade Class	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4
Boilermaker	1318	1694	1671	1978	1854	1722	1789	1761	1842	1322	1364	1243	1249	1253	1254	1248	1303	953	908	916	985	1308	1183	1145	1061	1240	1274
Carpenter	1153	1244	1271	1459	1575	1501	1580	1561	1608	1449	1436	1424	1472	1410	1375	1576	1637	1420	1404	771	767	756	741	689	675	744	744
Electrician	1283	1325	1366	1657	1806	1582	1756	1589	1537	1439	1422	1413	1385	1227	1345	1555	1615	1458	1486	1539	1486	1403	1449	1344	1268	1385	1453
Field Engineer	94	120	89	114	118	112	103	46	31	30	43	20	24	15	15	16	17	16	15	19	19	18	18	17	17	17	17
Insulator	272	259	272	319	335	272	282	307	292	248	255	261	252	229	260	311	313	231	234	73	64	79	72	78	68	63	73
Ironworker	309	376	352	362	439	389	347	426	407	426	490	412	416	388	401	416	417	401	381	433	458	425	401	339	336	390	432
Labourer	805	808	843	1203	1392	1584	1530	1536	1638	1566	1540	1732	1729	1602	1609	1520	1522	1519	1536	1457	1463	1407	1392	1252	1247	1301	1325
Millwright	583	670	731	690	671	611	673	725	575	569	558	553	561	516	571	614	592	535	544	562	541	594	638	620	591	611	634
Operating Engineer	253	264	269	384	477	406	369	423	410	344	343	374	361	322	298	264	268	191	188	136	144	118	122	118	103	114	111
Painter	35	32	39	24	34	28	40	23	34	25	41	26	34	25	34	23	33	25	39	27	37	29	43	29	37	30	44
Pipefitter	1369	1433	1604	1725	1884	1600	1596	1664	1728	1398	1347	1350	1359	1327	1385	1583	1660	1164	1105	746	784	813	780	784	755	969	965
Sheetmetal	110	120	131	181	134	125	141	171	165	158	155	175	170	158	164	144	144	133	149	224	213	202	184	196	190	279	309
Teamster	155	146	159	187	207	197	174	185	174	162	168	170	193	165	175	201	203	154	171	143	155	147	160	137	153	181	196

Demand versus Supply Data: Working Model



Partnerships/Stakeholder Engagement

DISCUSSIONS INITIATED WITH EARLY ADOPTERS:

- Owners (Buyers of Construction Services)
 - Electrical Power Systems Construction Association
 - Ontario Mining Association
 - Canadian Nuclear Laboratories
 - The Ottawa Hospital
- TDAs (Local Unions) with support from PBCTCO
- Contractors with support from CECCO, CLRAO, OMA



Thank you

The logo for CECCCO, consisting of the letters 'CECCCO' in a bold, red, 3D-style font with a slight shadow.The logo for the Provincial Building & Construction Trades Council of Ontario. It features the word 'PROVINCIAL' in a blue, sans-serif font, with a small map of Ontario integrated into the letter 'V'. Below this, the words 'BUILDING &' and 'CONSTRUCTION' are stacked in a bold, blue, sans-serif font within a white rectangular box with a blue border. At the bottom, the text 'TRADES COUNCIL OF ONTARIO' is written in a smaller, blue, sans-serif font.The logo for the Electrical Power Systems Construction Association (EPSCA). It features the acronym 'EPSCA' in a large, bold, black, sans-serif font. Below the acronym, the full name 'ELECTRICAL POWER SYSTEMS CONSTRUCTION ASSOCIATION' is written in a smaller, orange, sans-serif font.

Organized Sector Skilled Trade
Demand/Supply Forecasting Program