From: BOC.Clerk
To: Jenifer Johnson
Subject: Flint O"Brien Advisory Committee Application Planning Board
Date: Wednesday, May 13, 2026 11:51:48 AM

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1. Are you 18 years or older: Yes

2. Are you in active litigation against Chatham County:No

3. Are you employed by Chatham County Government: No

4. Name (First and Last): Flint O'Brien

5. Residency Type: Resident of Chatham County

6. Home/Business/Property/Other Address: 30125 Porter, Chapel Hill, NC, 27517, USA

7. Phone Number (Home or Mobile): 9192608411

8. Email Address: flint@flintobrien.com

9. In which Board of Commissioners district do you reside: District 1

10. Does a immediate family member currently serve on the committee: No

11. Please demonstrate your interest, experience, or expertise relevant to the subject matter of the committee: My goal is strong responsible economic development for Chatham County. I've been attending Planning Board meetings regarding data center issues. I have a lot of professional experience with electric utilities (rate structures, microgrids, smart grid, green energy, etc.). I'm interested in minimizing the negative effects of any data centers that come to Chatham county. I served on the Chatham County School Board from 2008 to 2012. I've had some work experience in home construction over the years and managed a rental property. I'm currently retired, but do travel some. I'm attaching my professional resume. My background is software development around green energy, smart grids, micro grids and EV charging infrastructure.

12. Please select which board or committee you are applying to: Planning Board

13. Are you willing to regularly attend scheduled meetings, participate in committee activities, and comply with all applicable laws, policies, and codes of conduct: Yes

14. State Reporting (Optional) Gender: Man

15. Are you Hispanic or Latino/a/e? (Optional): No

16. What race or races do you identify with? (Optional): White

17. What is your Age Range (Optional): 55-64

18. Attachments:

Flint O'Brien

flint@flintobrien.com
919.260.8411
LinkedIn
30125 Porter
Chapel Hill, NC 27517

Summary

Leadership strengths include solving really big problems, turning around a dysfunctional development team, making a good development team stronger, and creating that next-generation product on time with minimal resources. Mission-driven to understand and solve customer problems that affect buying decisions and develop solutions that are "good enough" so they require less development time.

Industries: Green Tech, Vehicle-2-Grid (V2G), Smart Grid, Energy Utilities, Microgrids

Executive & Technical Skills

- Strong technical leadership focussed on productivity, quality & developer happiness.
- Collaborative Management Style — Skilled at asking questions of all stakeholders to extract the actual root issues and concerns, then building an objective consensus for a solution that addresses those root issues and concerns.
- Successful at only hiring the 2 out of 10 people that usually do all the work at most companies.
- Values continuous constructive feedback and improvement over long-term performance reviews.
- Understands the strengths and difficulties of AI Forecasting & Optimization.

- Mentoring
- Code-for-test strategies
- Performance & scalability optimization
- Technical Pre-sales
- Roadmaps & PRDs
- Fail fast!
- Managing CI/CD
- Project Management
- Agile / Scrum
- Jira / Confluence

Technologies

- Cloud, embedded, IoT, microservices architecture
- Scala/Java, Python, C/C++, Akka
- Linux, Kubernetes, Docker, Kafka, gRPC, Protobuf, AMQP, (some MQTT) …
- PostgreSQL, MySQL, Cassandra
- UX: React, Angular, Javascript, TypeScript, CSS, jQuery, D3, XML, SVG, …
- Utility Protocols: 2030.5, OCPP, OpenADR, SCADA, DNP3, Modbus
- Agile development, Github, Jira, Confluence, …

Work

2018-01 — 2023-09

Fermata Energy

IoT Vehicle-2-Grid (V2G) microservices product with AI forecasting, optimization and near-realtime energy dispatch of EV batteries. Streamed 2-second data from local EV chargers up to the cloud. Issued commands to chargers in under one second. This very large and complex system was completely automated and included a web-based UX. AWS Linux cloud servers, BeagleBone Linux embedded systems.

Director of Software

- System is highly successful with four 9s uptime. The system is configurable for five 9s with full failover, but in my tenure, we hadn't yet needed the expense of spinning up failover nodes.
- First release of the product achieved 95% of maximum theoretical savings for customer energy bills (demand charges). The *expected* performance was 75% of maximum discharge capacity. Customer energy bill savings were on the order of $250 per EV per month (depending on demand charges).
- Near 100% system performance for Demand Response (where an electric utility requests EV battery discharge during peak demand and pays the customer for actual energy dispatched). Example earnings per EV, $4,200 per 3 month summer period (see press release).
- The above performance led directly to Fermata Energy's Series A funding raise of $40 million led by Carlyle Group.
- Managed Angular web UX releases and the completely revamped ReactJS UX releases.
- Agile development with two week sprints and releases each quarter to 9 months.
- 80% code coverage with automated tests.
- Grew development team from 2 to 14 highly productive (and happy!) developers.
- Managed a world-wide remote team: North America, Europe, Bali!
- Ran most pre-sales customer demos.
- Collaborated with Product Marketing on feature development timelines and roadmaps to present options to the C-Suite.

Senior Software Engineer

- Developed the near-realtime control system for V2G dispatch. It discharges vehicles only during monthly peak demand to avoid high utility demand charges.

Scala, Akka, gRPC, microservices, Kafka, PostgreSQL, Cassandra.

- Dispatch Control Simulator — Load historical 2-second data from actual IoT system data streams to test the performance of the complete control system during development of new features.
- With 80% code coverage and the Dispatch Control Simulator, Dispatch Controller bugs were exceedingly rare.
- Developed large suite of Python functions and Jupyter scripts for data analysis of system performance across installed sites and test simulations. Ability to evaluate ad-hoc data analysis questions.
- Customer Savings Calculator and Tariff Parser — System UX displayed live savings per month per site. Savings are dependent on the customer's bill which is based on the local tariff. Extracted tariff demand charges from Genability's national Tariff DB. If you haven't worked with utility tariff's, you just don't know how complex this problem is.

2009-03 — 2018-01

Green Energy Corp (formerly Plymouth Systems)

Senior Developer for a green energy startup developing IoT SCADA control systems for smart grids, energy utilities, and solar power plants.

- Duke Energy OpenFMB reference implementation demoed at DISTRIBUTECH 2016
  - Developed the full-stack UX.
  - AngularJS, Play Framework, Akka, D3-Traits, D3.js
- Coral - Next Generation Micro-grid SCADA UX. github.com/gec/coral
  - UX and server for displaying dashboards, measurements, events, alarms, charts, etc.
  - Live updating charts with drag-n-drop. Drag an object onto a chart or drag a plot from one chart to another. Charts display on bottom of current web page or pop-out to full web page.
  - WebSocket push for real-time data updates.
  - Keeps high availability connection to Reef server.
  - AngularJS, Play Framework, Akka, D3-Traits, D3.js
- D3-Traits – Javascript chart library built on top of D3.js. github.com/gec/d3-traits
  - Added "trait" or mix-in capability to Javascript.
  - Library of standard components for building up complex charts (axes, chart types, legends)
  - Smooth scrolling of live data and panning like Google Finance charts.
- TotalBill
  - UX and server for customer energy use, billing, and invoicing.

    - AngularJS, Play Framework, Akka, D3-Traits, D3.js, PostgreSQL
- GreenBus ESB Deployment Console
    - UI and backend for migrating database from QA to staging to production.
    - Cool UX that shows a visual diff of pending migration and enables user selection of components to migrate.
    - AngularJS, Play Framework, PostgreSQL
- GreenBus ESB Middle-Ware
    - High Availability, High Scalability, and High Security multi-node ESB to connect legacy backend system to new mobile apps for end users (Java, JBoss cluster, Spring, PostgreSQL, Linux/CentOS/Red Hat, Chef deployment).
- GreenBus Microgrid and SCADA system
    - Web front-end (Google GWT, Java, Jetty, Spring). Live views for utility one-line diagrams, charts, configuration, etc.
    - Server backend (Scala, AMQP, Protobuf). Highly scalable, high throughput, clustered service-oriented architecture (SOA). Designed for large amounts of utility telemetry data.
- Web-based One-line Schematic Editor (Javascript Ajax, AngularJS, SVG, jQuery)
- Solid State Transformer Driver (DNP3 client): embedded development – C++/ Linux
- Second generation Web SCADA GUI (Javascript Ajax, jQuery)
    - Developed first beta level application in 2 months
    - Innovative native application look-and-feel running in web browser
    - Pluggable architecture modeled after jQuery
- Solar Power Plant SCADA System with 2-axis tracking mirrors (Ajax Javascript, jQuery, Ruby on Rails)
- Overhauled web user interface for professional look-and-feel
- Plugged development and testing holes to get to final release

2002-10 — 2008-11

Hatteras Networks

Director of EMS Software – 2003-2008
EMS Architect/Team Lead – 2002-2003

Manager of Element Management System (EMS) group and also a developer (team of 2 to 5 people). Provided the user interface for Hatteras Networks' line of carrier-grade Ethernet switching products.

Took over a dysfunctional group that was not making release dates and not producing viable solutions. The EMS team was one of the top three board-level problems that needed fixing. Hired as a lead developer, but after 6 weeks of delivering results on time, was promoted to EMS Architect and Team Lead. One year later, was promoted to Director of EMS.

Over six years, the EMS team delivered products on time, with exceptional quality

(handful of customer found problems in 6 years), and with a proactive, no headaches, make it happen team.

- Manager and developer of two critical customer-facing products:
  - WebManager: Embedded GUI application for provisioning all switch products (Web/XML/XSL browser client written in C on VxWorks).
  - EMS: Highly scalable Java client/server Element Management System for managing a large network of Hatteras Ethernet access products. Features include managing large amounts of SNMP operational data, equipment inventory, software upgrade of switches, (optimizing High Availability during upgrades), photo-realistic view of switch front panels, etc. Linux/Red Hat, JBoss, MySQL.
- Provided a hands-off, no problems, make it happen team reporting to VP of Development.
- Rated "Outstanding" for all yearly performance reviews.
- 94% success rate meeting very aggressive internal schedules.
- 100% success rate meeting aggressive customer-facing delivery schedules for 15 major releases of two products over 6 years.
- Implemented/managed three test systems for fully automated unit and system testing.
- Managed customer integration efforts with other EMS products. All projects completed on time or ahead of schedule.
- Led EMS customer demos for large sales opportunities.
- Perfect record of hiring highly productive class 'A' developers.
- Before joining the team, features were developed, discarded, and developed again. Implemented a requirements process that zeroed in on a "good enough" solution (including user scenarios and prototype screen shots). Features are now developed once, on time, and with high satisfaction.
- Before joining the team, there was no architecture. Every feature/screen was a custom solution. Implemented a common architecture to speed development (model, view, control, transport, etc.).

2002-01 — 2002-05

SlickEdit — *Senior Architect*

Architect/Developer for technology team developing the market leading programmer editor.

- Helped achieve on-time release of new Version 7.0 product (April 16, 2002).
- Developed the requirements for SlickEdit's new profile management architecture.
- Although SlickEdit is 10 years old, they were not on source code control. Put the entire development code base onto source code control (CVS) in one week.

2001-04 — 2001-10

Practicing Smarter — *Director of Technology*

Directing the technology team developing healthcare business intelligence (web-based executive dashboard with OLAP drill-down) for hospitals and clinics. SAS and J2EE technologies.

- Arrived when the product release was 6 months behind schedule with no end in site. Hired a team of "Class A" developers and drove the first version to completion in 3 months.
- Architected & Managed the IT infrastructure for fault tolerance and high availability.
- Managed customer data ETL process (Extract, Transform, Load).
- Established a very focused, goal-oriented development environment.
- Product and Technical Architect. SAS and J2EE technologies.
- Supported marketing and sales with product positioning and product strategy.

1997-03 — 2001-04

CalendarCentral — *President, CTO & Founder*

Founded CalendarCentral in 1997 as a software startup to create a web-based enterprise calendar for marketing organizations (extracted and displayed events from a corporate-wide event database).

- Product in use at over 100 companies (examples: Kraft, Goldman Sachs, HP, Novell, Visa, Boeing, Iomega, Quest, Duke Univ., Indiana Univ.)
- Mastered Java and web protocols, developed the first prototype, and landed IBM as first customer, all within 4 months. Delivered final commercial product two months later.
- Successfully managed 4 major product releases over 4 years.
- Personally developed versions 1 & 2.
- Rock solid, web-based multithreaded architecture (installations in excess of 100,000 users).
- Java Server running on Unix/Linux/Windows with JDBC/SQL backend (Oracle, MS SQL), XML, Ajax Javascript, and Java Applet clients.
- Product based on customizable HTML templates and a customizable database schema.
- Modern development shop: nightly builds and tests, automatic build of product releases.
- Grew sales from $20,000 to $430,000 per year. Personally raised $2M in capital.
- 19 Employees.

1996 — 1997

MCI — *Lead Architect, Consultant*

Lead architect for a new service that allowed self-testing of router installations via an

automated Java web interface.

- Promoted to Lead Architect, after a month and a half at MCI, for 6-person team.
- Started when project was 1 month behind schedule. Mastered MCI's router systems and completed the project in 4 months - a first for this group at MCI.
- Architected and developed a new distributed transaction framework in less than one month.

1995 — 1996

Nortel — *Senior Developer, Consultant*

Part of a team transitioning Nortel's large switching hardware to an Object Oriented architecture for NI2 compliant ISDN services.

- Mastered Nortel's DMS100 switch architecture and was promoted to lead developer of a team of 3 senior developers after two months.
- Initial pilot call delivered on time (6 months). Final delivery on time (10 months).

1991 — 1995

Seer Technologies — *Senior Developer*

Startup company developing a large client/server application development environment (Unix, Windows, OS/2, & mainframe) for large banks and insurance companies.

- Assigned lead architect role for complete rewrite of a GUI layout design tool.
- Developed a platform-independent binary data store that became the corporate standard across all product lines.
- Managed the core, cross-platform (Unix, Windows, OS/2) windowing/graphics framework.

1989 — 1991

Aspen/Cypress Semiconductor

CAD Engineer for a Silicon Valley startup developing best-in-class BiCMOS cache memory chips and PLAs for high-end workstations.

- Optimized core yield calculation library to run in a few seconds instead of 30 minutes.
- Developed a GUI application that used simulated annealing to optimize memory chip design for maximum yield based on number of redundant cells, chip size, fabrication yields, etc.

Education

Computer Science Bachelor's – Mississippi State University – 1988
Computer Science Master's – Mississippi State University – 1989

Thesis: Created a non-intrusive message-based multi-computer debugging framework for a server cluster with a custom high-speed physical routing network. Also developed a simulator for evaluating physical network topologies and routing strategies.

Other Life

Served on Chatham County Board of Education (2008-2012)
Co-founder and past President of the local Java Users Group (1996).
Avid wildlife/landscape photographer, runner, road and mountain biker.